

SAXON, VIKING AND NORMAN



TERENCE WISE G A EMBLETON

SAXON, VIKING AND NORMAN

First published in Great Britain in 1979 by
Osprey, an imprint of Reed Consumer Books Ltd.
Michelin House, 81 Fulham Road,
London SW3 6RB
and Auckland, Melbourne, Singapore and Toronto

© Copyright 1979 Reed International Books Ltd.
Reprinted 1980, 1981 (twice), 1982, 1983, 1984, 1986
(twice), 1987, 1988 (twice), 1989, 1991, 1992, 1994, 1995

All rights reserved. Apart from any fair dealing for the
purpose of private study, research, criticism or review, as
permitted under the Copyright Designs and Patents Act,
1988, no part of this publication may be reproduced,
stored in a retrieval system, or transmitted in any form or
by any means, electronic, electrical, chemical, mechanical,
optical, photocopying, recording or otherwise, without the
prior permission of the copyright owner. Enquiries should
be addressed to the Publishers.

ISBN 0 85045 301 1

Filmset by BAS Printers Limited,
Over Wallop, Hampshire
Printed in Hong Kong through Bookbuilders Ltd

If you would like to receive more information about
Osprey Military books, The Osprey Messenger is a
regular newsletter which contains articles, new title
information and special offers. To join free of charge
please write to:

**Osprey Military Messenger,
PO Box 5, Rushden,
Northants NN10 6YX**

Introduction

Our knowledge of the military aspects of the so-called Dark Ages is gleaned to a large extent from contemporary literature, yet these writings are principally by monks with little comprehension of military matters and no interest in tactics or strategy. There were no military writers *per se* in Europe at this time; and even the sagas of the Scandinavian heroes, dealing specifically with individual military prowess, although based on the prose and poetry of the fighting skalds, were mostly composed in Iceland during the 13th century, at least two centuries after the events they describe. At best, they are highly coloured; while documents such as the invaluable Anglo-Saxon Chronicle give only the victim's view of the Viking raids and must be treated with caution. Thus the subjects of military organization and fighting methods remain tantalizingly obscure, and few if any conclusions can be reached with any certainty of accuracy.

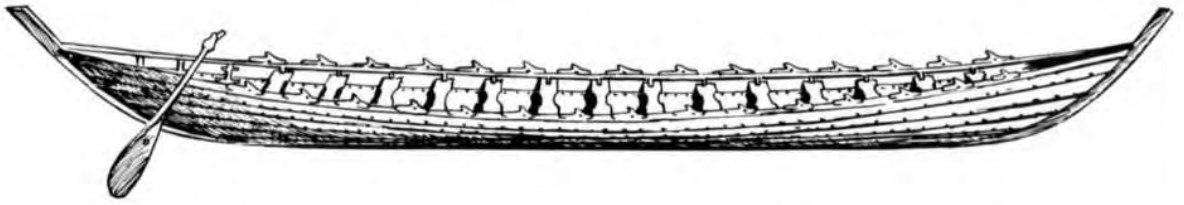
When it comes to weapons and equipment we are more fortunate, for there is a large range of surviving weapons, equipment, ships and even textiles. Such gaps as remain can usually be filled by evidence from the illuminated manuscripts—subject to a religious man's misrepresentation—and some primary sources such as the Bayeux and Oseberg tapestries. However, it must be stressed that the tapestries are not military manuals; they are decorative rather than accurate portrayals, and figures and events are stylized to tell a propagandist tale. Any information contained therein must, again, be interpreted with caution: too much knowledge of military matters has been presumed from the Bayeux tapestry in particular, especially when one considers that neither the Norman nor Saxon armies at Hastings were typical ones.

What follows, both in text and artwork, is

therefore largely unconfirmed interpretation, and no hard lines have been drawn. When one considers that military writers are still arguing about what was worn by the fighting troops during the Second World War—and this despite a mass of information—it is not surprising that portrayals of Saxons, Vikings and Normans vary from book to book. However, there is one thing we can be certain of: these civilizations were a great deal more advanced than some writings would have us believe. Their womenfolk were extremely dextrous with needle and loom, their smiths and other craftsmen highly skilled at producing artefacts which we now have difficulty in reproducing to an equal standard. Like all 'barbarian' peoples, the Saxons and Vikings, particularly in the earlier migratory centuries, loved to display their wealth on their person in the form of rich clothing and exquisite metalwork: items were made to a high quality and were meant to last more than one man's lifetime.

The Saxons

When the Roman government of Britain collapsed in the early 5th century, the romanized native population struggled for a time to preserve its Roman way of life, but gradually this was submerged by invaders from the Continent. These invaders came from three powerful Germanic nations: Saxons from northern Germany and Holland; Angles from the south of the Danish peninsula, an area still known as Angeln; and Jutes from Jutland. At this time, the Migration Period, there were similar tribal movements taking place throughout Europe and it is probable that the Angles, Saxons, Frisians and possibly even the more independent Jutes were by this date more or less



A Saxon boat with rowlocks for fifteen pairs of oars, found at Nydam in Jutland. More than 24m long and with a beam of 3.5m, it could carry about forty people, but had no sail and a very low freeboard. It dates from c. 400, but it was probably in boats of this type that the Anglo-Saxons reached Britain. (Gerry Embleton)

identified with each other, forming an Anglo-Saxon people of mixed stock but with a number of common characteristics. The invaders are thus usually termed Anglo-Saxons for convenience.

The first Anglo-Saxons to reach Britain came by invitation, possibly even before the Roman government had collapsed. They came in war bands, under their own chiefs, as mercenaries to help defend Britain against attacks from Ireland, Scotland and the Continent. These first small groups later combined into larger units and began to colonize Britain, sending word to their homelands of the easy pickings. Larger-scale invasions followed.

The most important invasions by these mercenaries-cum-colonists were c. 440–460. Legendary leaders, such as Hengist and Horsa, employed originally by King Vortigern in the south-east to repel the Picts and Scots, soon rebelled against their employers and began to establish petty kingdoms. The native population put up a considerable resistance to the expansion of these kingdoms, particularly under such military leaders as Ambrosius Aurelianus and Arthur; but gradually, over a century and a half they were reduced to a subject people, or fled into the hills of the Celtic lands to the west and north. By the time of the Augustinian mission to England in 596 (felt necessary to rescue Christianity in what had now become a pagan land—the land of the English) the Anglo-Saxons controlled the whole of the south coast from Kent to east Dorset, from the east coast (from the Thames to the Humber) across to the lower Severn, modern Staffordshire, Derbyshire, most of Yorkshire, and part of Northumbria and Durham. There is much

confusion over which tribes settled where, but broadly speaking the Jutes controlled Kent, the Isle of Wight and part of Hampshire; the East, West and South Saxons controlled Essex, Wessex and Sussex respectively; and the Angles controlled East Anglia, Mercia and Northumbria.

By the beginning of the 7th century there were about a dozen independent kingdoms, with the main power in Northumbria, and in the first half of the century the Northumbrian kings almost established themselves as permanent overlords for the whole of England. But in 658 the Mercians revolted and ended all hope of unity for another century. Gradually in the second half of the century the centre of power shifted from Northumbria to Mercia, with Essex, East Anglia and London being absorbed into that kingdom by 670. Sussex, Wessex and the Isle of Wight subsequently became subjected to Mercian rule and by the reign of Offa (757–796), the strongest of the Mercian kings, he was able to describe himself in one of his charters as ‘King of the whole of England.’

His successor died in 821 and there followed a series of campaigns by the king of Wessex, until all those lands formerly ruled by Mercia were subject to Wessex. From then until 1066, apart from twenty-six years of Danish rule (1016–42), the kings of the royal house of Wessex controlled a united Anglo-Saxon kingdom, though towards the end their grip on the reins was loosened by Earl Godwin.

In 1051 Earl Godwin and his sons rebelled against Edward the Confessor and were banished from England. They returned the following year and drove into exile many of Edward’s Norman

adherents (Edward was related to the Duke of Normandy through his aunt). Thereafter Edward's rule became largely nominal, and after the death of Earl Godwin in 1053 England was controlled mainly by his son Harold Godwinson.

Edward the Confessor died on 5 January 1066, leaving three contenders for the throne of England: William, Duke of Normandy; King Harald Hardraada of Norway; and Earl Harold Godwinson. Harold had himself crowned the same day that Edward was buried: the scene was set for the final act in the formation of the English nation. Was the country to remain Saxon, or to come under the diametrically opposed influences of either Scandinavia or Latinized Normandy? The decision, as we all know, was made in the early autumn of 1066, when the three cultures clashed at Stamford Bridge and Senlac Ridge.

Organization

The Anglo-Saxon community in England was essentially a rural one and all classes of society lived primarily on the land. At the top was the royal house, the king and the *athelings* or princes of the blood, claiming a common ancestry with the king and with special privileges and responsibilities, including military service and command in the field. By the middle of the 9th century the royal family of Wessex was universally recognized and held a hereditary right to rule; yet automatic succession to the throne was not guaranteed, and the Witan, or council of leaders, retained the right to choose the best successor from the members of the royal house.

Next came the *ealdormen*, the ruling nobility of England, with their origins in the under-kings of formerly independent peoples. In a charter of 777, Offa refers to one such noble as 'my under-king, ealdorman, that is, of his own people the Hwicce.' In later Saxon times the ealdorman was the king's 'viceroys' of a shire, responsible for its administration and justice, for calling out the reservist army or *Fyrd*, and for leading those military forces in the field. The office probably became hereditary quite early on, and ealdormen therefore always came from the ancient families of the aristocracy. The term ealdorman began to be replaced by *earl* c. 1010, possibly influenced by the Danish *jarl*, and in the second half of the 10th century the title became

more important, an earl now governing several shires. Athelings, ealdormen, archbishops and bishops formed the Witan.

The *thegn* was an originally separate class, probably originating from the bodyguard of the great leaders; that is what had been a companion in arms in the earlier war band became a thegn in the age of settlement. Good service by a thegn could result not only in rich gifts but also occasionally in the granting of lands, and on rare occasions this could lead to elevation to earl. Thus a thegn, a servant of the king, with or without ancient family, and holding his office by royal commission, could become a member of the Woden-born aristocracy.

A select body of thegns, usually the younger warriors, was known as 'the king's thegns' and attended the king personally at set times each year. They accompanied him everywhere, both as bodyguard and lesser officials. Older thegns served him as advisers.

English, Welsh and Pictish kingdoms, 7th–9th centuries.





Saxon kings in battle, the one at top left accompanied by a shield bearer who has no weapon but whose sole duty was to protect his lord. The accompanying sketch makes weapons and equipment easier to discern.

The thegns were a numerous class, and charters of Aethelred II (978–1016) are witnessed by twenty or more king's thegns. Nor were thegns restricted to the service of the king in this later period, for the great earls had their own thegns; and even the older, more powerful and landed thegns might have their own thegns in turn.

Below the thegns were the *ceorls*, simple freemen or yeoman farmers, independent landed house-

holders who formed the backbone of the Saxon kingdom, based as it was on a rural economy. There were probably three main classes of *ceorls*, although the boundaries between the classes are blurred. Firstly there were the *geneatas*, the peasant aristocracy, who paid rent to their overlord: *geneatas* derives from the Old English *geneat*, originally meaning a companion, and this implies that the class originated from the lord's household, probably receiving land as a gift. Secondly there were the *kotsella*, who paid no rent but had to perform numerous duties for their overlords; and thirdly, the *gebur*, who was totally dependent on his lord and whose life was dominated by the labour services he owed him.

Below the *gebur* were the *serfs* or bondmen, the slaves or thralls. The economy depended considerably on slave labour and though the *gebur* was a lowly peasant, he was a privileged class compared to the slaves, and had the right and duty to serve in the Fyrd. *Ceorls* could win promotion through prosperity or military service, and if for example a *ceorl* possessed five hides of land, he became entitled to the rights of a thegn. He could not, however, rise to be an earl.

The military organization of the Anglo-Saxons is a notoriously difficult and obscure subject and it is not possible to give any firm dates for developments over the centuries, nor precise details of those developments—mainly because the Saxons did not need to define their military organization for themselves; it was part of the life of every able-bodied man.

In the beginning there were simply the war bands, small bodies of professional warriors led by their chosen chiefs, some of whom subsequently set themselves up in small kingdoms. Loyalty to a chief was the greatest virtue, and the warriors sought out a leader who could further their career, swore allegiance to him, and vowed to increase his stature and riches by their exploits. In return the chief feasted and wine-d them royally and gave them magnificent gifts of arms, armour and gold, enhancing his reputation by the size of these gifts. Ten to twenty men might be an average strength for these early war bands, but the later petty kingdoms of the early 7th century might perhaps have fielded thirty men or more. The bands were swollen for major raids or wars by attracting

warriors from other war bands by the promise of loot. By the late 7th century the kings of the now fewer but larger kingdoms would have had bands of perhaps 300 warriors.

If a chief or king died in battle, his men died avenging him, though a few might survive after being struck down and left for dead. It was dishonourable to leave the battlefield on which your lord had been slain, and those few who did were frequently executed by the successor for their disloyalty.

From the beginning of the 9th century the kingdoms were under attack by other professional warriors—the Vikings. We know from accounts of battles before Alfred's reign (879–899) that some form of levy existed to deal with these raids—and dealt with them quite adequately on occasions—but we have no details of the organization. However, it is obvious that the king and his corps of élite warriors, now usually referred to as the *Hird* or *Hearth Troop*, could not be everywhere at once, and the onus must have fallen chiefly on the earls. It was their job to summon the able-bodied male population in emergencies, and this they or their thegns could have done reasonably swiftly in the localized areas which were affected by the raids; but such a force would in general have been poorly armed farmers who could not have had much success against Vikings. We must assume, therefore, that the organization which we know to have existed from the reign of Alfred must have been functioning at an earlier date.

The personal followers of the leaders, the thegns, and numbers of hired mercenaries—often Scandinavians, and mercenaries in the true sense, with all the modern connotations of the Congo—formed the spearhead of any force; but it would appear that from quite early in the 9th century this was backed up by what is later referred to as the *Select Fyrd*. This was raised by selective recruitment, rather than a general levy, by drawing one man for every five hides of land. Many of the *Select Fyrd* would therefore have been thegns, but when no thegn was available—either because the unit of five hides was part of a larger estate held by one thegn, or because the land was held by a ceorl or ceorls—it could also contain these members of the upper peasantry. In these cases the men involved combined to send one of their number to the *Select*

Fyrd, and normally it would be the same man sent whenever the *Fyrd* was summoned. He would naturally ensure that he was well equipped, and ambition and experience would soon create a worthy warrior.

The towns were also assessed in hides and the inhabitants required to send representatives. In some instances the towns could commute their service by paying the crown twenty shillings in lieu of each warrior, the exact sum necessary to hire a replacement.

All these warriors were mounted to give them the mobility necessary to counter the Viking raids, but the men normally fought on foot, unless in pursuit of a defeated enemy. Thus the thegns, ceorls and the townsmen (or their substitutes) of the *Select Fyrd* were all well-equipped, experienced men, and were by no means merely peasant farmers.

In those regions of England which were assessed in *geld carucates* rather than hides (approximately the areas where the Danish settlement was heaviest) some analogous ratio of carucates to warriors would have been in operation, probably in units of six carucates.

The *Select Fyrd* could be called out at any time and active service depended entirely on the need: it might be called out several times a year, yet serve for only a few days each time. Each hide was charged four shillings towards the maintenance and wages of the selected representative, that is twenty shillings for the five hide unit, and as sixty days was the customary period of service anticipated, this meant a wage of fourpence per day. This is roughly comparable to the wages of a knight post-conquest, so it can be plainly seen that the *Select Fyrd* was indeed a select body of men.

In later years there was also an alternative obligation to supply a warrior-seaman for the fleet, and for this purpose the five hide units were combined in some regions into districts of 300 hides, which were called *ship-sokes*. These were required to produce sixty warrior-seamen and also to pay for the construction and maintenance of a warship which the men manned. Some ports, particularly those known later as the Cinque Ports, were also required to supply smaller ships to augment the fleet.

In addition to the *Select Fyrd* there was the *Great Fyrd*, a general levy of all able-bodied



Peasants going to war, from an 11th-century psalter. These were freemen, members of the Greater Fyrd, but as can be seen their place in battle was definitely the second or rear ranks.

freemen, which was summoned in emergencies to defend the shires. These untrained men served mainly in the defence of their own homes, and were not obliged to serve more than half a day's march from their home without pay. Neither king nor earl could keep this body of men in the field for long periods and it had a strictly limited use, consisting mainly of farmers who had merely picked up their spear and perhaps a shield, although it must also have contributed a fair number of valuable archers and slingers to the Saxon army. In the Welsh and Scottish Marches special conditions prevailed, and the levies might have to serve for fifteen days and to accompany expeditions beyond the borders of their own shires, into Wales or Scotland, where their knowledge of the border areas was invaluable.

In peacetime under Alfred, the thegns (meaning possibly the entire Select Fyrd) had to serve one month in three in rotation so that there was always a good force on call; and during one emergency Alfred divided the Greater Fyrd of one shire into two halves, keeping one half in the field under arms while the other half tended the land.

Towards the end of the 9th century Alfred also began the building of a series of fortified towns, or burghs, to house garrisons and act as rallying points



A Saxon of the lower peasant class in typical woollen clothing and with his lower legs wrapped in linen bandages reminiscent of puttees. He wears a 'Phrygian' cap and carries a scramasax. (Gerry Embleton)



A Saxon housecarl and ceorl meet defeat at Hastings. (Bayeux Tapestry)

for the local forces. This was probably in imitation of the fortified bases of the Danish raiders. In the early years of the following century the building of burghs was continued, and twenty-seven were erected between 911 and 924, all on the network of old Roman roads or on strategic waterways.

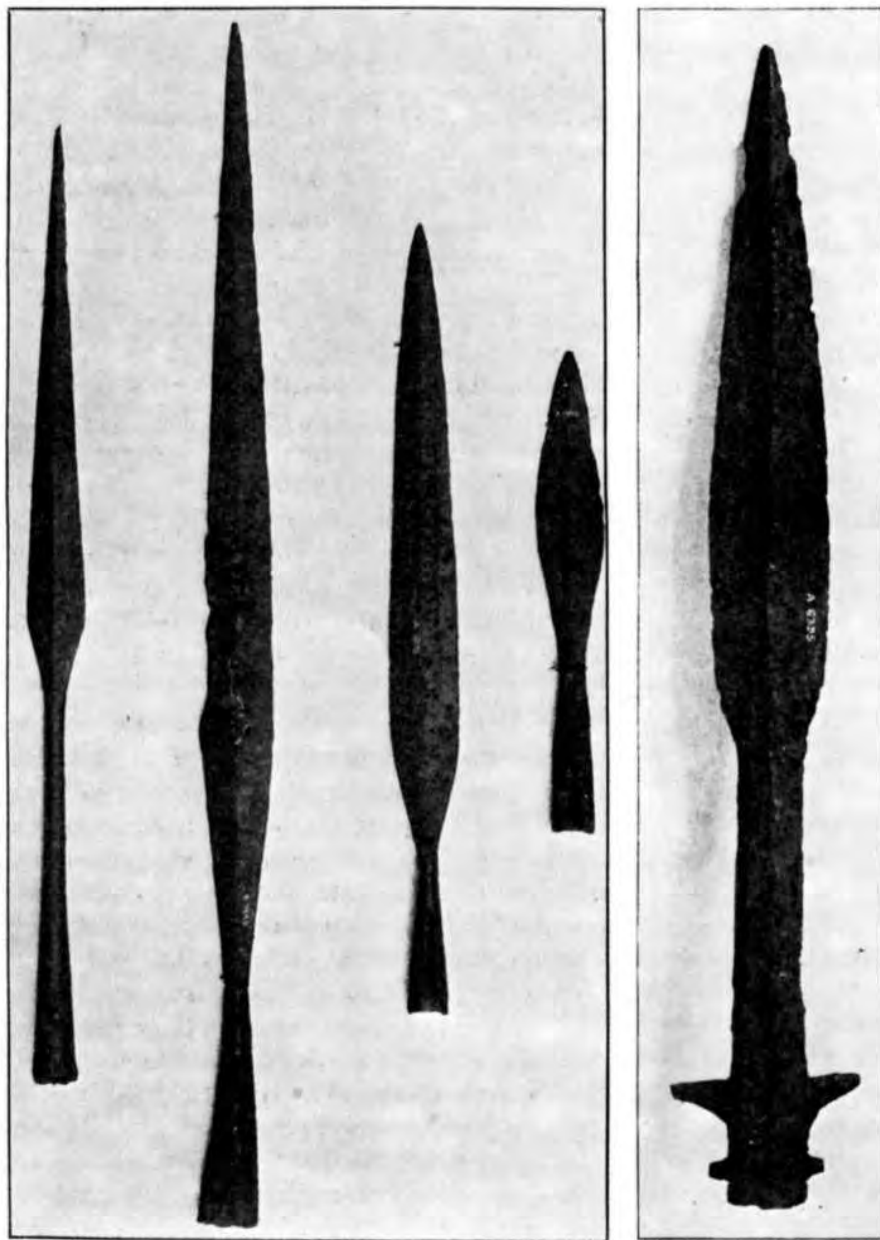
By the beginning of the 11th century all the thegns usually held estates of five hides or more, and so by this date they probably constituted the bulk of the Select Fyrd. At the beginning of this century there also appears the first mention of the élite body of warriors known as *housecarls*. It is thought that these were introduced after Svein Forkbeard's conquest of England in 1016, and were probably raised by Knut in 1018. Professional mercenary soldiers, they had their own rules of conduct, lived at the king's court and received his pay, as opposed to gifts. They formed a small but efficient and highly organized standing army, well disciplined and heavily armed.

The housecarls were retained by Edward the Confessor and by Harold Godwinson, and during the reign of the former they appear to have been recruited also by the great earls: Tostig's English and Danish retainers are referred to as housecarls by the Anglo-Saxon Chronicle, but the term may have acquired a more general meaning by then and encompassed all landless mercenary soldiers as

opposed to the thegns, who were warriors but also landowners under the king. There are, however, other references to mercenaries in the pay of the king or earls who are clearly not housecarls, such as the *lithsmen*, who were skilled seamen but who also fought on land. These and other paid warriors provided the late Saxon kings with a highly trained nucleus, backed by the earls and their war bands, and by the thegns of the Select Fyrd.

By the mid-11th century the royal housecarls probably numbered about 3,000. Earl Tostig lost 200 of his own housecarls during the Northumbrian revolt in 1065: as some of his housecarls survived and escaped, a figure of around 250–300 housecarls seems reasonable for an earl.

At Hastings the Saxon army, although its élite force had been weakened while achieving victory at Stamford Bridge, and although it was short of the quota of men for both the Select and Greater Fyrd, successfully withstood the Norman army in a battle which lasted much longer than was normal for the period. At its full strength it could probably have held its own against any army in western Christendom, and its value was not underestimated by its conquerors, who not only adopted the Danish axe of the English but also perpetuated under the Anglo-Norman kings both the Select and Greater Fyrd systems.



Far left
Anglo-Saxon spearheads, that on the left from the 8th to 10th centuries period, others from the 10th to 11th centuries. All except the right-hand example have split sockets.

Left
'Winged' spearhead found in the Thames: this type was in use from the 8th to 11th centuries.

Arms and Armour

The main weapon of the Anglo-Saxons was the spear, not only for the Fyrd but also for the professional soldiers and even the lords: it was the traditional weapon of Woden and remained the weapon *par excellence* among Germanic peoples even during the 11th century. At the battle of Maldon in 991 the ealdorman Byrhtnoth led his men into battle armed with spear and shield, and it was only after he had killed two men with his spear, and had

been wounded twice, that he drew his sword to engage a third man. Under Knut, the *heriot* (war trappings) due to the king on the death of an earl (in effect the return of gifts given during the earl's life) was eight horses, four helmets, four mail shirts, eight spears, eight shields and four swords. The heriot of a thegn was half that, and these figures suggest that at least in the later period twice as many men were armed with spear and shield as were armed with mail shirt, helmet, spear, shield

and sword, that is the Select Fyrd and Hearth Troop respectively, and that all were normally mounted.

There were two types of spear; a light throwing spear or javelin, and a stouter thrusting spear which would have been used in much the same way as the modern bayonet and was probably also used for hunting. Manuscripts of the later period frequently show warriors holding two spears in the shield hand and a third in the right hand; presumably two of these would be throwing spears and the third was retained for hand-to-hand fighting.

The shafts of these spears naturally varied in length according to type and personal requirements. No Saxon shaft has survived, but the position of the heads and ferrules in graves indicates lengths of from 1.50m to 2.75m. A German shaft which has survived is 2.10m long, and 2m seems to have been a common length, with the longer shafts for the thrusting type. Such a weapon would have been extremely useful in the opening phase of a *mêlée*, but its length would have ensured that it was dropped after the first clash and the more manageable sword or axe would then be drawn.

The heads of these spears are found in the graves of rich and poor alike, and range from 7 to 60cm in length. They are usually leaf-shaped, with a strong rib running up the centre of the blade, creating a lozenge shape in section. The socket is usually split at the sides, being hammered tight on to the shaft and then secured with a rivet, and often by leather thong lashing also. Some heads are pattern-welded (see under swords) but this is rare. The larger heads of the thrusting spears are sometimes richly inlaid with copper, bronze or silver, which tends to confirm they were not normally thrown.

Heads of the Frankish *angon* are also found (Frankish mercenaries crossed to Britain with the Anglo-Saxons) but only in the graves of the wealthier men, and this suggests that these weapons were only used by the tried and experienced warriors. The head usually has two barbs, is about 44-56cm long and always quadrilateral. The weapon was thrown into an opponent's shield, the barbs preventing extraction, the long head preventing the shaft from being cut off. The weight of the *angon* pulled the shield down, and a warrior might also tread on the trailing end of the shaft to pull his opponent's shield down further.

There may also have been a fourth form of spear,

resembling the medieval *glaive*: it is mentioned in contemporary writings and found in Merovingian and Carolingian graves, but none have been found in England as yet. It is perhaps significant that the term *glaive* is a German one, given to the weapon in the Middle Ages. (See also under Viking spears.)

Until the 11th century the shields of the Saxons were round, varying in diameter from 30 to 76cm. Traces of shields are rare, and these figures cannot be used to give an average size, but assuming the diameter was twice the length of the forearm, a figure of about 60cm would be reasonable. According to the rivets found, these shields varied in thickness from 12 to 30mm. A hole in the centre provided room for the hand to clasp an iron grip across the inner face of the hole, and this hole was protected by a metal boss about 15cm wide, usually hammered out of a single piece of iron, though occasionally a flat sheet of metal was merely bent to form a cone. The boss was secured to the wood by four or five rivets with heads up to 50mm wide. These were often silvered or gilt, and the edges of the shields of the richer men were also bound with metal. A strap for the forearm may also have been used on the larger shields, and the metal fastenings for this on the face of the shield were sometimes made into decorative plates. However, most shields would have been simple constructions of linden wood, often painted red, or faced with one or more layers of ox hide. Those of the peasants may have had only a leather protection over the grip, or the cheaper cone boss. Sometimes two or three layers of wood were used, in strips laid cross-grained as in modern plywood, to give greater strength. There is insufficient evidence as yet to confirm that the shields were curved rather than flat, but the manuscripts indicate curved shields were used, and the plywood construction would have made this possible. Again, the peasant class would have been using the simpler form.

In battle the shield was initially carried at arm's length in order to break the force of any weapon striking the shield and to keep away from the body any weapon which pierced it. For the in-fighting it was held close to the body so that it could not easily be knocked aside, and was used both to parry blows and as an offensive weapon: the edge was often used to strike at a spear shaft to break the head off or knock the spear away, and the boss was forcibly



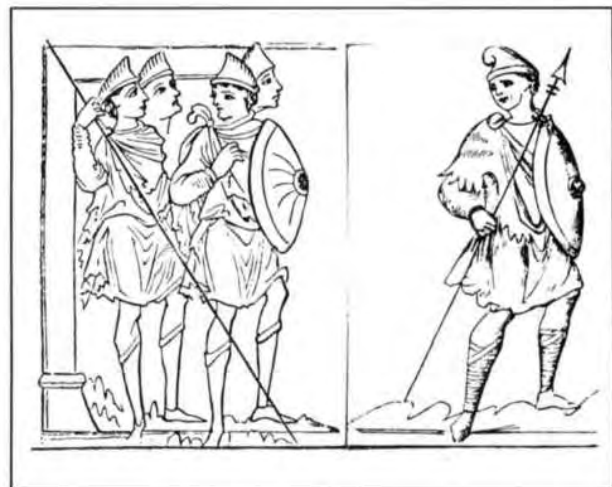
Spatha-type sword found in the River Lee at Enfield. It still has a short crossguard but now has the type of pommel referred to as 'cocked hat'.

thrust into an opponent's face or chest to throw him off balance. It was not unusual for a shield to be hacked to pieces early in a fight; but the boss could still be used as a mailed fist, or the shield of a fallen man might be seized.

The kite shield (see under Normans) was adopted by the housecarls and other professional warriors from as early as c. 1000, but the round shield continued to be used by the lower ranks. Those housecarls at Hastings who were armed with round shields may perhaps have had their own shields shattered at Stamford Bridge and maybe had picked up Viking shields to replace them.

The most prized weapon, but not the most common one, was the sword. These are rarely found in graves, for their value was considered so great that they were handed down from father to son, or passed as gifts to great warriors or kings; they were considered to have a greater value if they were old or had belonged to a famous warrior in the past.

Curved, round shields, as portrayed in an 11th-century Anglo-Saxon manuscript. The flowing robes are typical late Saxon. The right-hand figure is probably wearing some form of leather jerkin as extra protection.



The early kings might thus have acquired a small collection of such swords, passing them out to their leading warriors, and receiving them back, their value enhanced, on that warrior's death. Men below the rank of thegn, even as late as Knut's reign, did not have swords.

At first the Saxon sword followed very much the pattern of the Roman *spatha*, having a broad, two-edged blade about 75cm long with straight edges and a rather rounded point. The hilt was plain and virtually without a crossguard. The blades of these weapons, made at a time when the method of manufacture caused great variation in quality, were often pattern-welded to obtain a better result. Pattern-welding consisted of twisting rods of iron together and beating them into a blade which had a soft core within a skin of case-hardened iron. A bar of case-hardened iron was then welded all the way up each side and round the point to create a cutting edge which was both hard and sharp, while the blade retained its flexibility. Such a blade might take a month to manufacture, and in 958 was valued as equal to the cost of fifteen male slaves or 120 oxen.

By the end of the 8th century these swords were being replaced by a new design, still about 75–80cm long, two-edged with straight edges, but with blades which were much stronger, with a wide, shallow groove down the centre of both sides to lighten the blade without loss of strength. The width of these blades was approximately 55mm and the weight about 0.68kg.

Blades were imported and hilts added in England. The later hilts had a much longer guard, almost always curved towards the blade; a grip of wood, or less often bone, bound with cloth, leather, cord or even silver wire; and a more prominent three- or five-lobed pommel to counterbalance the heavier blade. In the 9th and 10th centuries there

appeared two new types of pommel, now named the 'tea cosy' and 'brazil nut' after their shapes, and in the 11th century a few disc-shaped pommels appeared.

Some of these hilts had small rings attached to them by a loop rivetted to the end of the pommel. In later examples the ring is no longer free moving, and later still it adopts a solid, merely decorative form. Such 'rings' could have had no practical value and it is believed they may originally have been awarded to warriors for valour—the rings do not occur on the swords of kings, so were not used for oath taking—or as a symbol of comradeship. Some pommels without rings show signs of wear where rings had once been worn, and as a warrior's sword was frequently passed on this may confirm the awarding-of-rings theory; such a ring would naturally be removed when the sword changed hands.

Scabbards consisted of two thin laths of wood covered in leather and with the mouth and tip protected by metal. The inside was frequently lined with fleece, the lanolin in the sheep's wool preventing rusting and the spring of the wool helping to hold the blade firmly in the scabbard. The 'lay' of the wool was upwards, to enable the sword to be drawn easily.

The scabbard was slung on the left hip, either on a baldric over the right shoulder or on a waist belt. Both belt and baldric were frequently ornamented and the buckles were generally of bronze, sometimes of copper, and not infrequently gilded, embossed or enamelled; some were set with garnets and other stones.

All warriors, from the highest to the lowest, also carried a single-edged knife known as a *scramasax*. This was used to finish a felled opponent, and in the case of the peasant classes took the place of a sword. Its length therefore varied according to its rôle, and examples found range from 7.5 to 75 cm in length. However, the average size for most of the hundreds found is around 15cm from hilt to point. This was probably the knife usually referred to as the *hadseax*: the extremely long examples were sometimes called *langseax*. Most blades were broad heavy and with an angled back sloping in a straight line towards the point, and were often inlaid with copper or bronze wire. The guard, if any, was insignificant; the grip of wood, sometimes carved;

and the tang usually without a pommel. Some of the longer knives have a grip long enough to be clasped with two hands. The *scramasax* was carried in a sheath of folded leather, the edges rivetted together on the side of the cutting edge, and suspended on the thigh from the waist belt by small bronze loops.

The reign of Knut and his successor saw the introduction of the two-handed Danish axe as a substitute for the sword. However, it was in use for a relatively limited period in the Saxon army, and that it was not a common weapon amongst the ordinary soldiers is proved by the rarity of its occurrence at archaeological sites. Its use may have been limited to the housecarls and Danish mercenaries. It is described more fully under Vikings.

The plain crossguard and pommel of an early Saxon sword belonging to the 8th or 9th century. The grip is missing.





Sword hilts of the 10th and 11th centuries, showing the five-lobed, 'tea cosy' and 'walnut' types of pommels and (at the right) the curved guard of the 11th century.

Some examples of the *fransisca* or throwing axe of the Franks have been found in England, but the *fransisca* was replaced quite soon after the Anglo-Saxon settlement in England by the *scramasax*. The *fransisca* had a short haft and a head which curved upwards from the handle at a wide angle to a slightly up-turned blade.

Heavy war clubs may also have been used by the Saxons, although there is no pictorial evidence earlier than the 11th century, and our information is limited to one source, the interpretation of which is open to question. However, the club was certainly used by the Franks who came to Britain as mercenaries and it may have been adopted by the Saxons in this early period. That the club was still used in battle during the 11th century is confirmed by the Bayeux tapestry, wherein clubs are shown being thrown as well as carried as a primary weapon. (Bishop Odo, whose use of a mace is popularly attributed to his robust interpretation of the Church's prohibition against churchmen shedding blood, is not the only figure in the tapestry armed in this way.)

Slingers also appear on the Bayeux tapestry and in manuscripts, but they would be of the lower classes. The sling was a simple leather band or strap

with an open pocket in the middle for the projectile, and it hurled with considerable force either fired clay balls or stones, which were carried in a wallet.

Bows are rarely found on archaeological sites because of the decay of wood, but archers are well represented in manuscripts, and the saga of *Beowulf* gives ample evidence for the use of the bow as a weapon of war by the Anglo-Saxons' ancestors. Several traces of bows have been found, and these would seem to indicate a length of about 150cm. However, surviving examples found in Germany may be taken as typical of Anglo-Saxon bows, and although these range from 120 to 320cm in length, from 180 to 210cm seems to be an average figure. These bows are of yew, curving very slightly, thickest in the middle and tapering towards the ends. Metal has been found on the ends of a few, and it is possible that horn was also used to tip the staves, as on the medieval longbow. It would appear, therefore, that the bow in use in the pre-conquest period was little different to the longbow, except that the string was not pulled back to the ear, only to the chest, suggesting either a weaker or more rigid stave or merely an inferior ability as archers. Nevertheless, these bows were capable of piercing mail at up to 46m, and had an effective range with a trajectory of up to 92m.

Arrowheads are not commonly found and can be confused with the small heads used for throwing

spears. They appear to have been leaf-shaped and some were barbed, with a tang or socket for the shaft. Shafts which have survived are about 60cm long, somewhat thicker towards the point, and had four flights. Quivers which have survived also point to a short arrow of about 60cm: the quivers were cylindrical and were carried over the right shoulder or on the left hip.

Armour was worn only by the professional soldiers and great lords, and the bulk of the army would have worn everyday clothing, perhaps with the addition of a leather jerkin. The mail shirt is first mentioned in Anglo-Saxon laws at the end of the 7th century, but because of its great value it remained scarce until the end of the period covered by this book. It seems also to have been of a fine mesh, close-fitting and closely woven, with short sleeves, a vandyked lower edge reaching to just past the waist, and a simple round opening for the neck. *Beowulf's* saga mentions mail frequently, but it would appear men could swim in it—which would have been out of the question in the mail of the late 11th century—and it seems to have been correspondingly more fragile: it is often described as being damaged and has to be repaired after every battle.

Axeheads found in England and dating from the 10th and 11th centuries: the bottom right example is probably post-conquest.



Scramasax of the 9th or 10th century, with a Saxon sword of the 7th or 8th century with the 'cocked hat' pommel characteristic of this date.

Finds of mail from the pre-conquest era are rare and their evidence inconclusive. The Sutton Hoo find yielded a mail shirt, but it was corroded together: radiography revealed that it was composed of alternate rows of rivetted and butted rings. Mail fragments found on the Benty Grange helmet were possibly only the neckguard, and have not survived. (A good example of a helmet with a mail neckguard occurs in a contemporary grave in



Saxon tanged arrowhead.

Sweden.) A manuscript of c. 1000 still shows waist-length mail shirts with vandyked lower edges and short sleeves, but a manuscript of fifty years later shows a king's shirt as longer and split at front and rear, presumably to make riding a horse easier. By c. 1010 some long-sleeved mail shirts were also coming into use among the high-born.

Helmets were also worn, but these do not become

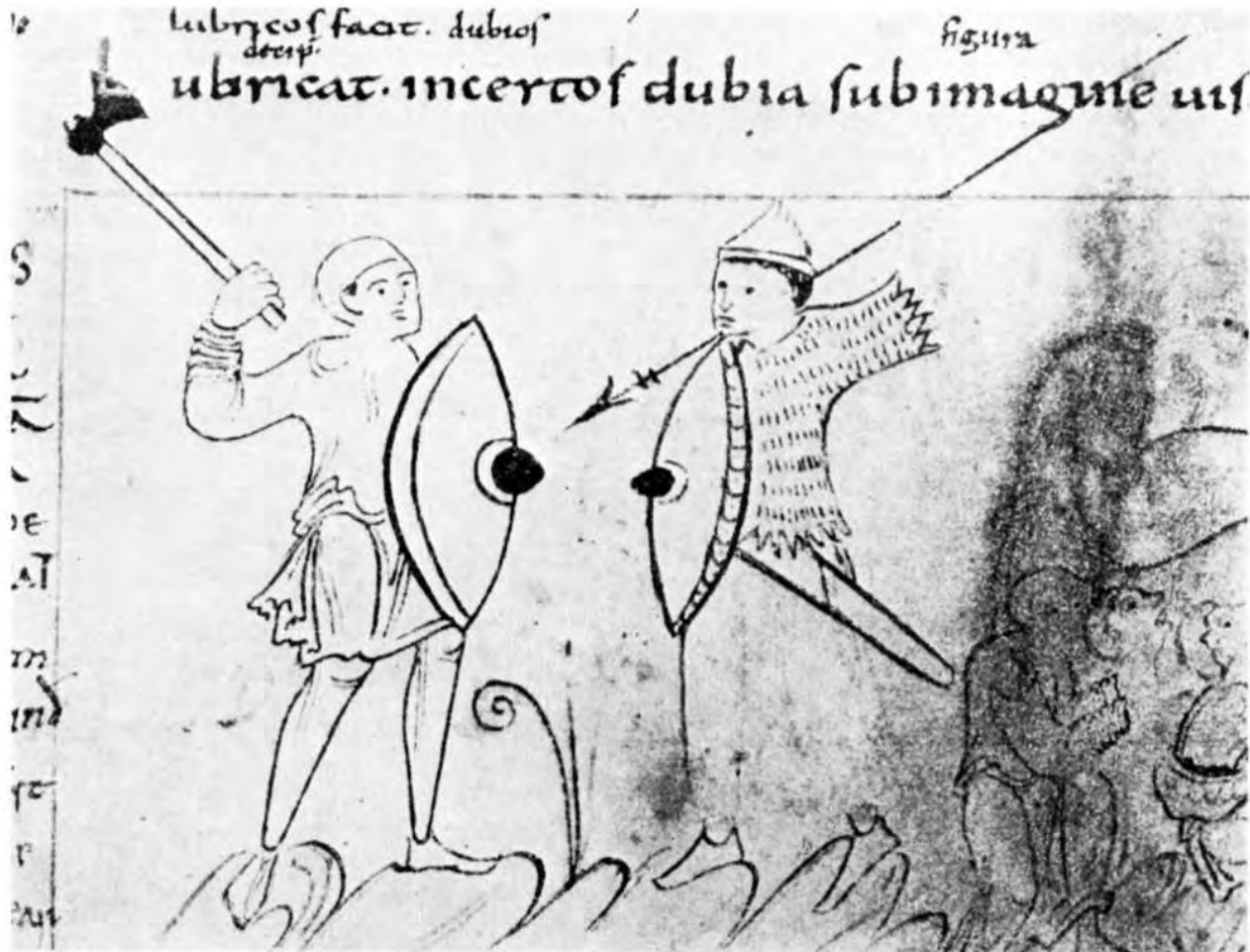
common until the 10th century and were probably only worn by high-ranking warriors prior to that date. Even under Knut the lower thegns were not wearing either mail or helmet, and it was probably only in subsequent years that the iron helmet was worn by all the thegns and professional warriors.

Only one Anglo-Saxon helmet has survived in England: the Benty Grange helmet now in Sheffield Museum. This is made from a brow band and four iron arches, with the spaces between filled originally by horn plates. A straight bar or nasal protects the face. The helmet is topped by a bronze wild boar, emblem of the Teutonic god Frey. Helms 'guarded by boars' are mentioned in *Beowulf*, 'wrought so that no blade could pierce them.' It may be that the boar provided not just the protection of the god, but some physical reinforcement to the crown.

By the beginning of the 10th century the type of helmet now referred to as the *spangenhelm* had made its appearance. These could be hammered out of one piece of iron, either including a nasal guard or with this bar added, but were more usually of the framework type, but more spherical, and with the horn plates now beginning to be replaced by metal ones. The nasal was probably not common until this date.

A mail hood, known as the *healsbeorg*, was introduced in the 9th century, again for the richer men only. This covered the back of the head, cheeks and chin, and by the beginning of the 10th century had become quite common amongst the professional warriors. Its name became corrupted to *hauberk*, a term subsequently applied to hood and shirt together.

A more common form of headgear until the 11th century was the hat now referred to as the 'Phrygian cap'. None have survived, but it is extensively illustrated in contemporary manuscripts (see earlier illustrations) and dates back to at least the Carolingian period. It was probably a simple leather cap, the various methods of stitching the upper edges perhaps being a means of creating extra strength along the crest, though it may also have been worn over a steel cap. A surviving steel cap which could have been worn under other headgear is small and rounded, fitting close to the head, and is made up from a head band and a series of interlaced strips which create a lattice effect.



The Vikings

A Saxon ceorl with short-hafted axe and shield, and possibly a simple helmet, tackles a member of the warrior class armed with spear, sword, shield and what is probably a mail shirt. From a contemporary manuscript.

The Viking Age can conveniently be defined as commencing with the first raid on Lindisfarne in 793 and ending with the defeat of the army of Harald Hardraada at Stamford Bridge in 1066. However, this is a prejudiced view, a time limit set by those who suffered at the hands of the Viking raiders, for the Vikings were on the move as traders and settlers long before 793, while the end of the Viking Age was brought about as much by Christianity as by the success of the Anglo-Saxons at Stamford Bridge.

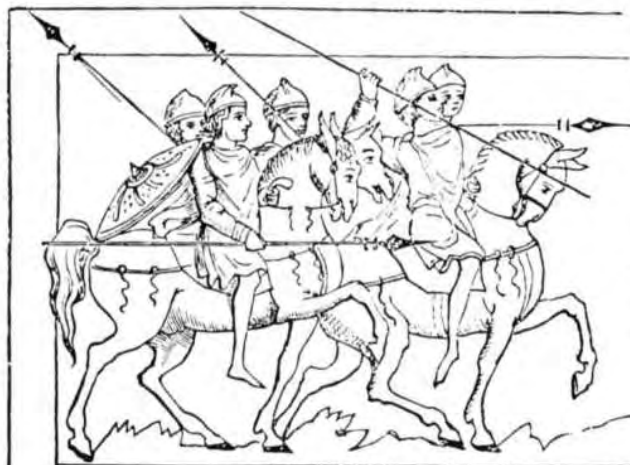
Whatever the exact chronological definition of the Viking Age, the Viking raiders burst suddenly into the mainstream of history in 793, terrorizing most of the then-known world, founding earldoms and kingdoms from the Thames to the Volga, and





Warrior of the late Saxon period, from a contemporary manuscript. The pointed helmet is fairly typical of illustrations in manuscripts, as is the lack of armour.

Saxons riding to battle, apparently without either armour or helmets. From a contemporary manuscript.



having a profound effect on the making of modern Europe. '*A furore normannorum libera nos, Domine*' ('From the fury of the Northmen deliver us, O Lord'), prayed Christians throughout Europe but it was to be two and a half centuries before their prayers were answered.

Where did the Vikings come from, and why? They were Swedes, Danes and Norwegians, Scandinavians from a self-contained northern society which spoke a common language and shared a common culture. Originally traders, whose trading posts in foreign lands frequently grew into colonies, they leave us evidence that just prior to the beginning of the Viking Age there was a marked population explosion. The limited farming lands of Scandinavia could not support the increased population, and large-scale expansion began: as early as 810, raids were being co-ordinated to obtain not just loot, but land.

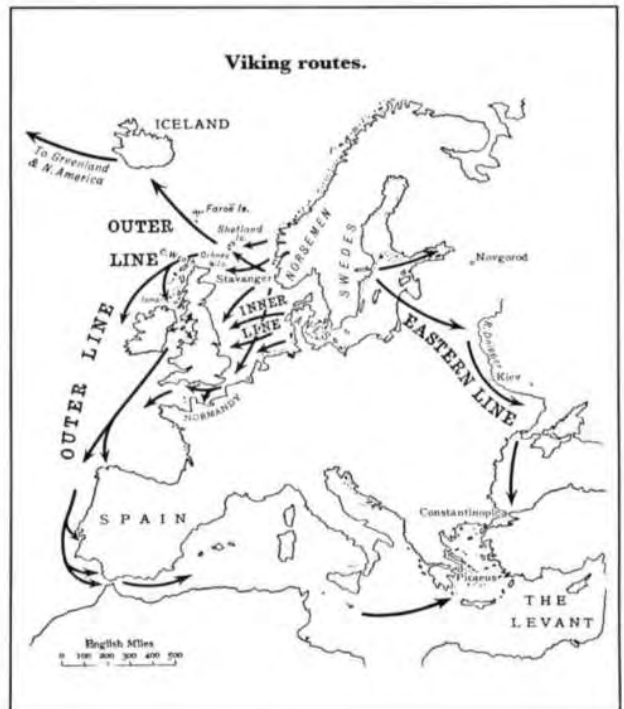
It was the Norwegians who began the raids, but the Danes and Swedes soon followed suit. Sweden faces the east, and the Swedes naturally thrust across the Baltic and into the steppes of Russia, following the rivers and lakes, down the Volga and Dnieper towards the great trading centres of Baghdad and Byzantium. Their own main trading centres were established at Novgorod, Kiev and Smolensk, and their leaders ruled here as princes. The Vikings called these lands Greater Sweden, but the Arab and Byzantine writers of the 9th and 10th centuries, in their frequent mentions of the Vikings, referred to them as the Rus (probably a corruption of the Finnish word for Sweden, *Ruotsi*), and thus the Vikings both created and gave their name to Russia.

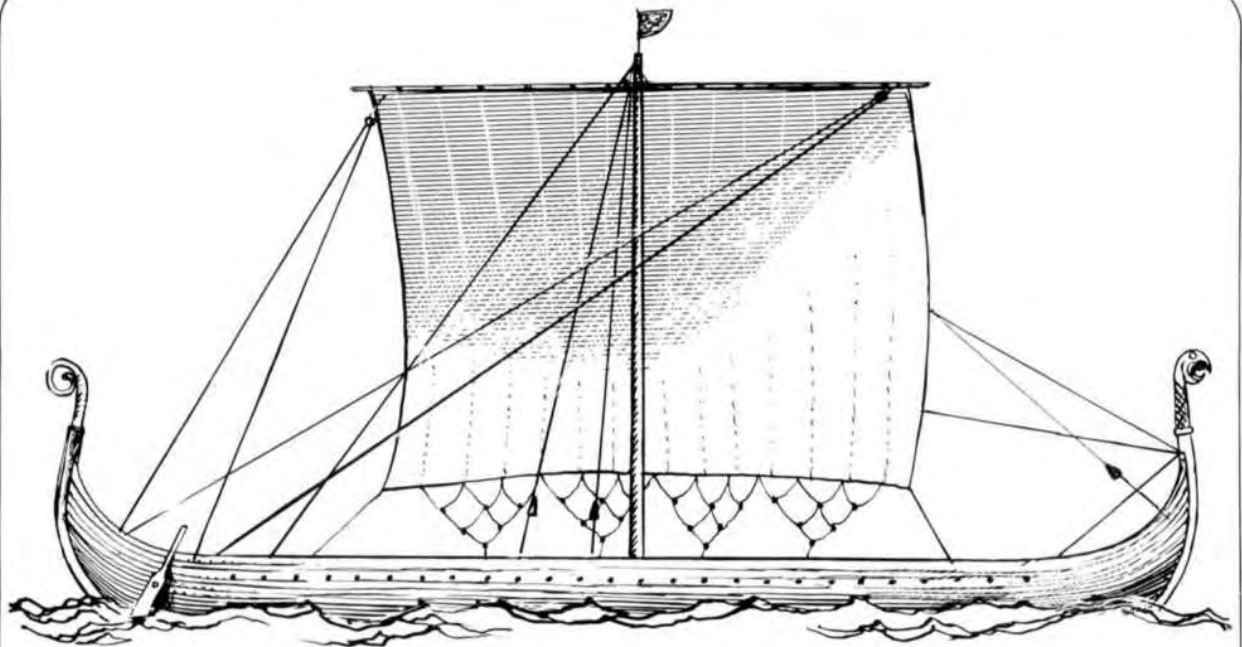
Those who settled in the great cities traded furs, honey, amber, wax and slaves to the East, and brought back the perfumes, spices and silks for which the East was famous. But the fighting men soon grew restless and moved on to go a-viking once again. Four times Rus fleets sailed across the Black Sea to attack Constantinople, which they knew only as Miklagård, the Big City, a legendary source of enormous wealth at the edge of the known world. The Byzantine emperors, impressed by the fighting ability of these warriors, recruited a special corps of Vikings for their army—the Varangian Guard—and so harnessed much of this surplus energy for their own good, a typical Byzantine manoeuvre. For



more than two centuries the Northmen served Byzantium as shock troops in the field and as the emperor's bodyguard at home, and many a runestone in Scandinavia mourns a warrior lost in a far-off land: '*vard daudr i Grikkium*' ('died among the Greeks').

some 75,000 and was the largest and strongest state in all Europe.





A typical Viking raiding ship, of a classic design which could not be bettered with all today's skills. Strong enough to carry a sail yet light enough to be rowed very fast, with a shallow draught which enabled it to be landed on any handy beach, yet with more freeboard than the Saxon boats, ships such as these made the Viking Age possible. (Gerry Embleton)

the Seine, and throughout the entire region evil grows strong. Rouen is laid waste, looted and burnt: Paris, Beauvais, Meaux are taken, Melun's stronghold is razed to the ground, Chartres occupied, Evreux and Bayeux looted, and every town invested.'

By the middle of the 9th century many of the Vikings were taking up semi-residence on the French rivers, wintering near the mouths and harrying inland in the fine weather. In 859 sixty-two ships sailed southwards from the Loire in search of fresh targets. They pillaged the Iberian coast, put Algeciras to the sword, and penetrated into the Mediterranean to ravage the North African coast. They wintered in the Rhône River delta and looted Arles, Nîmes and other cities in the region, then sailed on to Italy, where they looted and burnt Pisa.

England had meanwhile been suffering as badly, if not worse, for here the raiders seemed intent on conquest, not just loot. London, Rochester and Canterbury fell to the Vikings, as did (briefly) the capital of Winchester, and only Alfred of Wessex was able to resist them effectively. Alfred managed

to defeat the Danes in the south, but he could not save the north-east, and the wide belt of land between the east coast from the Thames estuary almost to the Tees, and the west coast from Liverpool to Carlisle, was ruled by the Danes and became known as the Danelaw.

After Alfred the power of the English kings declined, and by the end of the 10th century the Danes were attacking in ever-increasing strength. King Aethelred levied a tax—the Danegeld—to buy off the raiders, but this only encouraged more to pour into England for the easy money. In 994, the first year of the Danegeld, 16,000 pounds of silver were paid to the Danes: by 1012, when the last Danegeld was paid, it had risen to 48,000 pounds. Aethelred fled in 1016 and the whole of England submitted to a Danish king, Knut. By 1027 Knut had welded England, Denmark, Norway and part of Sweden into a Scandinavian empire.

However, by this date the situation was changing for the worse so far as the Vikings were concerned. Ireland had been lost in 1014. Iceland had declared independence. Knut died in 1035 and his empire



England, Scotland and Ireland at the time of the Viking invasions.

broke up, his son and successor holding the English throne only until 1042, when the Anglo-Saxon monarchs re-ascended the throne. Kingdoms had now been firmly established all over Europe, with defined frontiers guarded by professional soldiers. Christianity had arrived in Denmark and Norway, and bishops were preaching the message of the 'White Christ' in the last pagan strongholds of Sweden. Men could no longer go a-viking with an expectation of reward. Yet one name still shone with the glory of the olden times, attracting men to go a-viking: Harald Hardrada.

Harald had been wounded in a battle for the Norwegian throne at the age of fifteen and had fled to Kiev, where he unsuccessfully courted the daughter of the ruler, Yaroslav the Wise. He sailed on to Miklagård, joined the Varangian Guard and eventually rose to be its commander. For ten years he campaigned from the Greek islands to Asia Minor, from the Caucasus Mountains to Jerusalem; then in 1044 he returned to Kiev, immensely rich, and won his princess. In 1047 he was crowned king of Norway, and for the next two decades was known as the Thunderbolt of the North, pillaging throughout Scandinavia. In 1066, on the death of the English king, he turned his ambitions to England, on whose throne he held a claim. On 25 September Harald Hardrada, the last great Viking leader, died at the battle of Stamford Bridge: with him died not only the Viking raids on Europe, but also the Viking Age, and his death marked the end of Scandinavian influence over western Europe.

Organization

The culture of the Vikings denies the claim that they were barbarians, but in the first century of the Viking raids at least the raiders certainly lacked organization and resembled nothing so much as nomads. There were no kings as such, merely warlords, though sometimes when a number of bands were united for an expedition one chief might be chosen as the leader, and this could lead to him later becoming a petty king if a settlement was made. This is perhaps underlined by an exchange between a Frankish messenger and a Viking ship on the River Eure in France in the 10th century. The Frank demanded, 'What is the name of your

master?' Back came the reply, 'We have no lord, we are all equals'.

However, it would be wrong to underestimate the power of such warlords and petty kings, for although they had no machinery for government, still they were the law, and had at their backs private bodyguards which made sure the kings' commands were obeyed.

Under these kings were the other leaders, who became jarls, or earls. They held lands, owned ships, and had their own body of loyal warriors with which to assert their importance. They were especially prominent in Norway, where the geography led to the emergence of a number of powerful families which established lordship over the surrounding settlements.

At the bottom of the social scale was the peasant or *bondir*, the backbone of the people, smallholders and freemen, roughly equivalent to the Saxon *ceorl*. Like the *ceorl* they were men of some property in land and stock, and had the right to bear arms. They cultivated their land by the use of thralls or bondmen, 'unfreemen' who were little more than slaves and who could not bear arms.

It was the chiefs and their bands of warriors who went on the raids. Legend has made these warriors invincible, but the smallness of the war bands and their loose organization, with each man fighting as an individual, meant that they were frequently defeated when faced by the regular trained troops of the later Frankish and Anglo-Saxon kingdoms, and they were always most successful at hit-and-run raids along the coasts.

Similarly, the size of their armies has been greatly exaggerated; the fact that they were all professional warriors—not peasants—meant that they were never very numerous at any one place or time. The 'great horde' which invaded Northumbria in 865 probably did not exceed 500 warriors at the most.

Losses at sea and in battle frequently meant that as many as two-thirds of those who set out might perish, but this was accepted, for there was more loot and more honour for the survivors, and more chance of achieving higher status at home. (A Viking's attitude must have been very similar to that of the younger officers in the small corps of Royal Marines in peacetime, who would pray for a liberty boat full of senior officers to sink so that the

junior officers might achieve promotion and increased pay before retirement overtook them!)

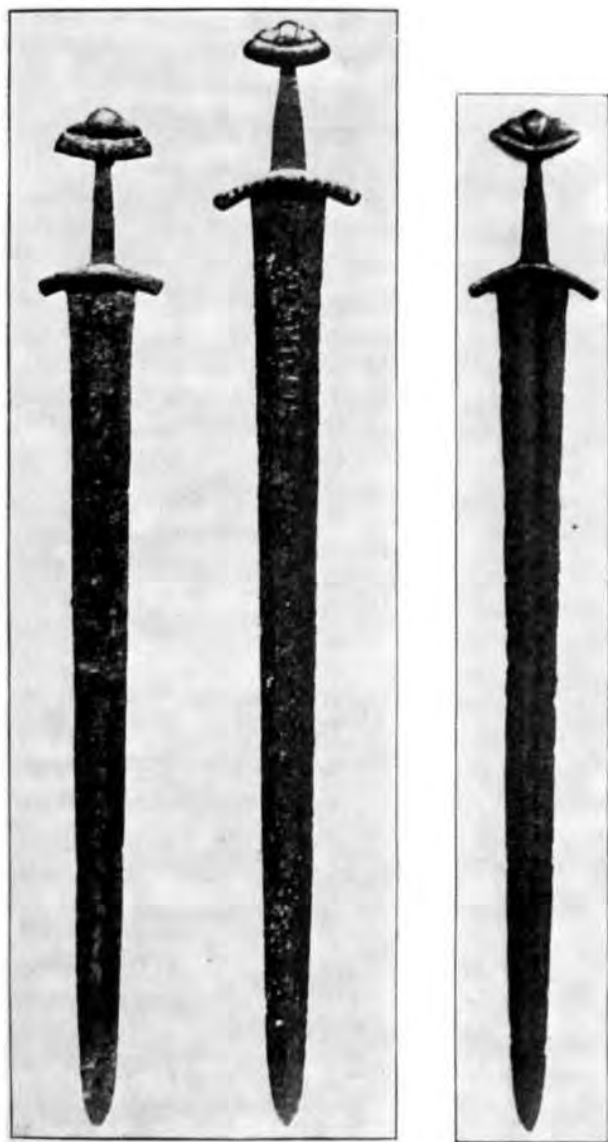
When a Viking chief took a war band a-viking he might have no idea what would happen during the course of the voyage, but always he would be seeking the opportunity by which he might achieve great wealth—whatever the method. He might sack and burn a series of towns and religious establishments for their precious metals and slaves; he might just as easily discover a favourable site for trading, establish a trading post and achieve wealth and fame through commercial expansion. In this case many of his best fighting men would move on, but his wealth would retain a sufficiently strong armed band to protect his interests. The warriors were not followed by the peasant class, as the Saxon war bands were followed to England by their farmers and craftsmen, and this explains why the Vikings were often assimilated into the local population, over whom they at first established themselves as an aristocracy.

We have seen briefly how the trading centres and routes became established. Raiding, by the lesser chiefs and their small bands, continued throughout the Viking Age, but as early as 810 an organized military operation at a national level was undertaken: King Godfrey of Denmark's invasion of Friesland. In the second half of the 9th century large campaigns were conducted to gain territory for colonization, and great parts of northern France, England and Ireland became occupied and ruled by Vikings. By the 10th century the kings of Scandinavia had emerged as extremely powerful rulers, and this in itself had an effect on the activities of all Vikings.

In Sweden, Norway and Denmark there now existed the *Leidang*, a levy of ships, men, armaments and provisions which could be summoned by the king and which had to be supplied by the population on a proportional basis. The *Leidang* may have been in existence towards the end of the 9th century, for our earliest information on it, in the early 10th century, shows it to be fully established and highly organized by that date. It could be called out locally or nationally, but was essentially a naval force. Coastal areas were divided into *Shipredes* responsible for supplying the ships, and each *Shiprede* was then divided into a number of farms or groups of farms, each of which had to



Viking sword of the 850–950 period: length 76.5cm, width 5.4cm, weight 1.14 kg. (Wallace Collection)



Viking swords found in the Thames and River Witham: all belong to the period after c. 950.

supply a man, together with his equipment and sustenance. The similarity to the Anglo-Saxon *Fyrd* is obvious.

In the event of an invasion (unlikely at this date) the whole *Leidang* could be called out, including even the thralls; but a *Half-Leidang*, a levy of the jarls and their *hirdmen* or housecarls, was called for attacks launched against an enemy. This meant the Scandinavian kings now had a highly organized military system on call, and in the 10th century military expeditions were conducted for political and commercial gain. Probably the finest example

of the Vikings waging calculated warfare is the series of invasions of England under Svein Fork-beard, planned to yield treasure hitherto undreamed of and ultimately to secure the crown and all the lands of England. This was no series of haphazard campaigns, but a twenty-year war carefully planned by Svein.

Four military camps were built in his kingdom of Denmark, at Trelleborg, Aggersborg, Fyrkat and Odense. Trelleborg, on a headland in western Zealand, was built between 975 and 1050, primarily as a naval and military base. It had easy access from the sea, yet was protected against attacks and sheltered from storms. The camp was surrounded by a ditch and earthwork and contained sixteen boat-shaped 'barracks', in four groups of four. It has been estimated that it could house 1,200 men.

Aggersborg, in northern Jutland, is almost in the centre of Denmark's largest fjord system, the Lim Fjord—in Viking times the starting point for many raids on England. The camp's layout is similar to Trelleborg and dates from the same period, but it is much bigger, with forty-eight barracks in twelve blocks.

Fyrkat is in north-eastern Jutland, at the head of the narrow Mariager-Hobro fjord. Again, it closely resembles Trelleborg and is dated at about the end of the 10th century. Odense is at the head of a long fjord, in the middle of modern Odense, and is also dated as late 10th century.

All four camps are strategically placed for communication by land and water; all could serve either an army, a fleet, or both; and all were constructed to the same geometric pattern at about the same date. There is little doubt remaining that these camps were the staging areas for the Danish conquest of England under Svein.

Arms and Armour

For the Viking, the sword was the principal weapon, with the axe a close second and the spear relegated to third place. (Spearmen often carried bows, which tends to confirm the relative lack of status of both these weapons and the men who carried them.) All those comments made concerning the value attached to Saxon swords, and to the use of hilt rings, apply equally to the swords of the Vikings.



Warrior of Scandinavian Vendel culture, c.550-800

Vikings, 9th-11th centuries







Danes and Saxons, 9th-11th centuries





Normans, 10th-11th centuries





Norman and Saxons, post-conquest

At this time the best blades were made by the Franks, and therefore the Vikings imported their blades, as had the Saxons, from the Rhineland. Not all were pattern-welded, however, and many were of local and simpler manufacture. In one Icelandic saga the warrior Steinthor, who owned a sword with a beautiful silver inlaid hilt, is described thus in battle: 'he found that the beautiful wrought sword wouldn't bite when it hit armour, and he often had to stop and straighten it under his foot.' Of such stuff are nightmares made, and it is no wonder that the imported swords achieved such fame.

After *c.* 900 the new type of blade emerged, no longer pattern-welded but now of flexible, fine-quality steel. These blades had a pronounced taper towards the point, making the sword lighter and consequently easier to wield. The slightly more pronounced point could also be used for thrusting. Including the 10cm tang, these swords were about 90cm in length: a sword as long as 95cm was a rarity. The fuller now usually bore a name on one side and an inlaid trellis pattern on the other.

In Norway there were also many single-edged, straight blades with the point in line with the back edge, and a very few of these blades were slightly curved.

The Vikings loved richness and colour in their weapons and dress, and in the early period their sword hilts were often plated with tin, copper, silver or gold. These hilts had a characteristic short, thick crossguard, and trilobate pommel. After about 950 the guards became longer and curved towards the blade, and the hilts were often richly chased and gilded, or inlaid with copper, silver, gold or niello. Many such hilts were made in Sweden. The grips were little wider than the width of a man's hand, indicating that it was not normal or necessary to employ two hands, though some Vikings frequently did so.

Scabbards were of the same design as the Saxon ones, and were normally suspended from a waist belt, though occasionally a baldric might be used.

The axe was a characteristically Scandinavian weapon, and to the victims of their raids the long-handled, broad-bladed battleaxe came to be the distinctive symbol of the Vikings—almost a terror weapon, for when wielded with both hands it could cleave through any armour and the man inside it,



Danish sword hilt of the earlier period. (Antivarisk-Topografiska Arkivet, Stockholm)

or literally slice the head off a horse. There were many varieties of axe, but the two main types were the bearded and broad axe. The older bearded axe or *skeggox* dates from the 8th century and was probably developed under the influence of the *fransisca*, with the lower point of the cutting edge much longer than the upper one, the point being cut off square. The heads of the *skeggox* slowly increased in size over the years until the upper and lower points were some 23cm apart, with a convex cutting edge between them. This was the broad axe, first popular *c.* 1000, and the most common Viking axe of the 11th century. The cutting edge was often made of specially hardened steel, welded on to the head. Both types of axe had angular necks



Swedish spearheads and axehead, all richly inlaid. The axehead is of the earlier skeggox type. (Antivarisk-Topografiska Arkivet, Stockholm)



Viking spearheads found in various parts of Sweden. Second from the left is the broad-bladed hoggsþjot type, possibly used in the fashion of the later pole-arms. (Antivarisk-Topografiska Arkivet, Stockholm).

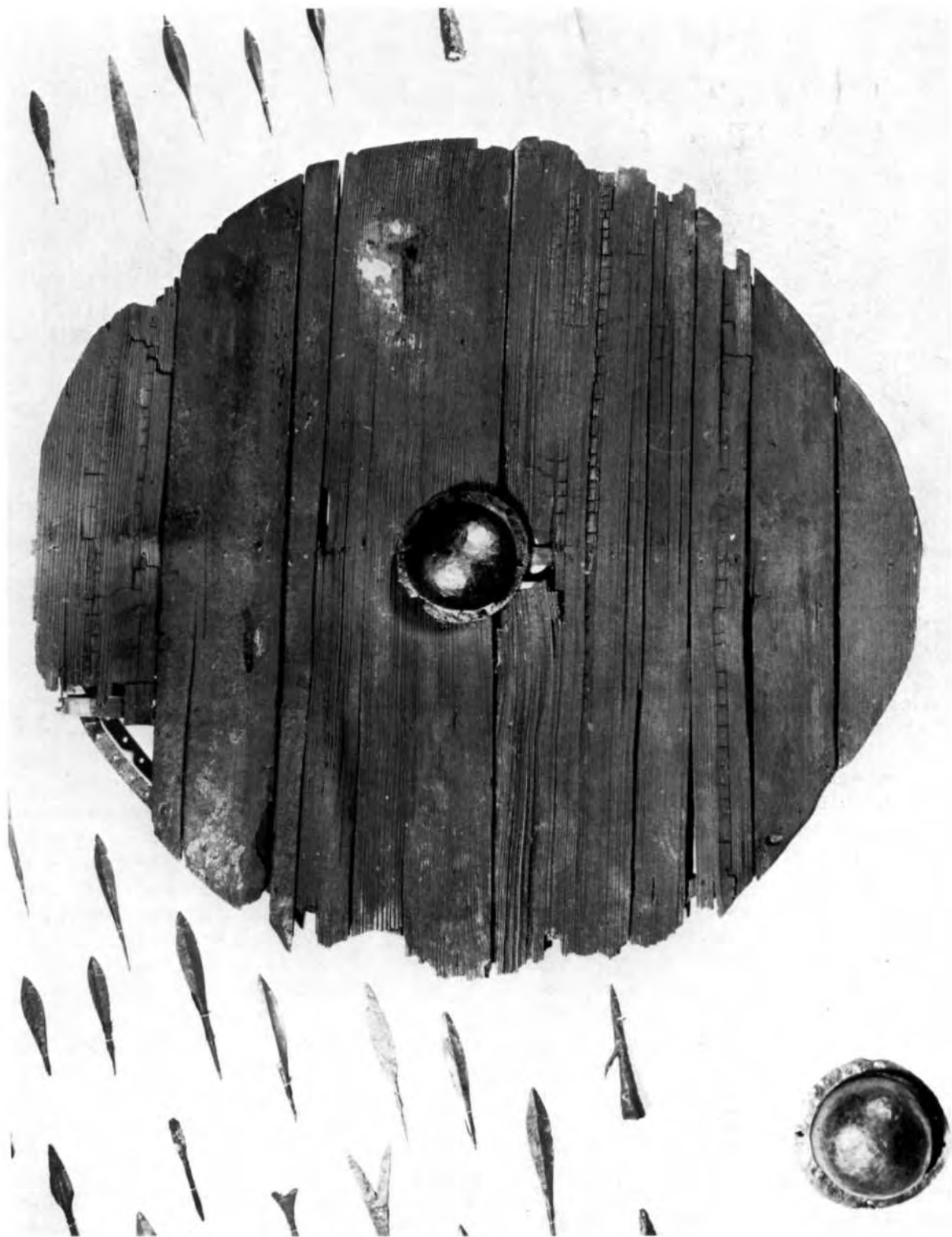
and were sometimes beautifully decorated with silver inlay on blade and neck.

From the illustrations on the Bayeux tapestry it would appear that the broad axe had a haft about 1.25m in length. The axe was held in the shield hand, that is behind the shield, if a spear was also carried, but frequently a warrior would be armed with only axe and sword and if he carried a shield this was slung over his back on a long strap to leave both hands free. The axe was held with the left hand uppermost so that it was swung from the left shoulder to catch an opponent on his unshielded side. There was little defence against the broad axe's immense power, and both attacker (who was unprotected when striking) and attacked relied mainly on agility to survive. It is interesting that only axemen were admitted to the bodyguard of Knut: the start of the tradition of axe-armed housecarls belonging to the English kings.

Spears were much as described under the Saxons, of both throwing and thrusting varieties: some of the later thrusting spears were richly inlaid with geometrical patterns in silver across the base of the blade. These were probably the hewing spear (Old Norse *hoggsþjot*), not designed to be thrown at all, though this term may have been for yet another form of spear, a heavier, slashing staff weapon.

Viking shields were round, on average about 60cm in diameter, with iron boss and sometimes iron edging. Unlike the Saxon round shields, they were always flat, but otherwise construction was the same. The Norwegians in Ireland often used the cone boss, either derived from the native Irish shields or because smiths were not available to produce the other type of boss at a reasonable price.

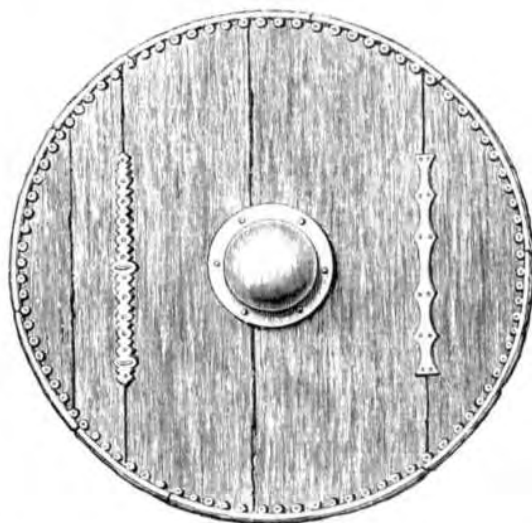
Most men carried a small, single-edged knife at their belt, with a simple handle of wood or bone. The Norwegians had a liking for the Saxon



Viking shield and arrowheads, part of the Gokstad find, and dated first half of the 9th century. (Universitetets Oldsaksamling, Oslo)



Top, helmet of the type found in the 10th-century Gjermundbu grave: bottom, helmet of frame and plates with nasal bar usually associated with the later Norman helmets. (Gerry Embleton)



Reconstruction of a Danish or possibly Jute shield: the metal decoration each side of the boss probably indicates that there was a leather strap for the forearm as well as the metal hand grip.

langseax, large, single-edged weapons which were virtually swords in their own right.

Archery was popular throughout Scandinavia, and many examples of bows have been found. The Norwegians are referred to by the chroniclers as famous bowmen; and King Edmund of Anglia was, of course, martyred in 870 by Danes using him as a target. However, it is doubtful if the bow was much used in war prior to the 12th century, and it was probably only used then by the lesser warriors. A yew bow found in Ireland, together with a Viking type of sword, was 185cm long and of D-section. Other examples range from 150 to 180cm. Arrows have also been found, measuring from 61 to 91cm. Arrowheads have been found in great numbers and are usually of a narrow leaf-shape, from 10 to 15cm long. The heads are sometimes barbed, mostly tanged, but some are socketed. The four flights were glued in position and secured with tarred twine. Cylindrical quivers were used.

Very little is known about the armour worn by Vikings, as there are few illustrations and no grave finds have included mail. The mail shirt, described for the Saxons, was probably only ever worn by the leaders and the warriors in their war bands, and



Viking helmet as portrayed on a carved antler of the 11th century, found at Sigtuna, Sweden. (Antivarisk-Topografiska Arkivet, Stockholm)

possibly by only some of the latter: it was never as common as we are given to believe.

Only a few helmets survive from the Viking Age, so that it is also difficult to be precise about these. However, the most remarkable find, in the 10th-century Gjermundbu grave, shows a simple rounded cap built up from four ribs and a brow band, with a spike on the crest and a nose and eye guard, the latter of spectacle shape. Similar helmets have been found in pre-Viking Swedish graves at Vendel (Sigurd's helmet of c. 575) and Valsgärde; and there is also the helm of St Wenceslas in Prague Cathedral, which is of this general pattern and dates from pre-935. It would seem that mail face guards were suspended from the eye guards of some of these helmets, but these were of fine mesh and did not reach to the mail shirt to cover the neck.

The 'Phrygian cap' does occur on rare occasions; a notable example is the portrayal of Sigurd the Dragon-slayer in the 12th-century portals of the stave church at Hylestad in Norway. However, a leather hat seems an unsatisfactory form of head-dress for a hero, and the source is in any case much later than the Viking Age.

Winged helmets appear to have been figments of the Victorian imagination, but horned helmets do occur and are illustrated on some of the textiles found in the 9th-century Oseberg ship. These helmets were not designed for battle, and were probably only used for religious ceremonies.

It is possible that a few of the kings and greater earls may have worn some form of greave; a sensible defence as the legs were unguarded by the shield and contemporary accounts often mention men having their leg or legs chopped off. No greaves have been found, and illustrations of them are rare. The first illustration is dated c. 890 and shows a Dane and two companions with thin metal plates attached to the front of their stockings and reaching from knee to instep. An example at the beginning of the 11th century covers the foot also, but greaves do not seem to have been used much after the end of the 11th century, and it is perhaps significant that this is the date when the kite shield was introduced.

In the late 12th century, laws were laid down to regulate the weapons which male adults should own. This is long after the Viking Age but has some historical relevance and gives a fair indication of what must have been an even greater lack of

armour in the preceding centuries:

Sweden: shield, sword, spear and iron hat for each man. A mail coat or protective jerkin and a bow and three dozen arrows per rowing bench. An axe might be used instead of a sword.

Norway: shield, sword or axe, and spear for each man. A bow and two dozen arrows per bench.

Denmark: shield, sword, spear and iron hat for each man. The *styraesman* (literally the helmsman, but meaning officer or skipper, commander of the local levy) had to provide, with the help of his neighbour, a horse, a coat of mail, and a crossbow and bolts, along with a man to use the latter.

Although the Viking fought on foot, his employment of the horse in war should not be ignored. The Viking's favourite animal was his horse, which was often buried with him, and he must have been a good horseman, unlike the Saxon. The Viking breed of horse has survived in Iceland, unchanged since the Viking Age: it is a small, sturdy breed, with coats of brown, brown and white, or brown-white piebald.

The early raiders soon learnt to rustle horses to increase their mobility, although still fighting on foot at all times, and captured Frankish horses were actually shipped to England in 885 and 892 by the Danes, pre-dating by 174 years the much-acclaimed shipping of horses to England by the Normans in 1066.

The Normans

By c. 900 the Vikings had ravaged northern France to such an extent that there was little plunder to be found along the rivers which had formed their major avenue of attack; yet ironically it was a Danish army, which arrived in 911 to pillage the lower Seine valley under a leader named Hrolf, that was to create the Viking's only lasting impact on western Europe.

Hrolf attempted to besiege Chartres without success, but his army was such a threat to the Seine valley that Charles, King of the Franks, negotiated a treaty with him at St Clair-sur-Epte. Under this treaty all the land bounded by the rivers Bresle, Epte, Avre and Dives (upper Normandy) was

granted to the Vikings. In effect this was the land the Danes already controlled. By 924 the Franks had to grant the Danes the districts of Bayeux, Exmes and Sées, and in 933 the Cotentin and Avranchin. Hrolf, baptized in 912, was now known as Rollo, and within two generations he and his Vikings had adopted the Franks' language, religion, laws, customs, political organization and methods of warfare, to become Franks in all but name—for they were now known as Normans, men of Normandy—the land of the Nordmanni or Northmen.

The Normans' love of the sea and their dynamic energy led to commercial prosperity, and by the middle of the 11th century Normandy was one of the most powerful states in Christendom. Their love of adventure led also to great migrations in the 11th century: to Spain to fight the Moors; to Byzantium to fight the Turks; to Sicily in 1061 to fight the Saracens; to England in 1066 to conquer that land, and subsequently Wales, southern Scotland and Ireland; and, as individual adventurers, to southern Italy as mercenaries. In many ways the 11th century belonged to the Normans; they had a major share in all the developments and achievements of Europe, were responsible for the major part of the expansion of western Europe and Christianity, and by the end of the century had established a chain of Norman states stretching from the Atlantic to the eastern shores of the Mediterranean.

In Italy the revolt against Byzantine rule began in 1009, and from 1015 Normans were recruited to fight for the rebels. These mercenaries were virtually wiped out in 1016 by the Byzantine army—which included detachments of the Varangian Guard—and those Normans who followed later took service in the Byzantine army alongside the descendants of their own predecessors.

During the next decade, landless Normans drifted south to fight in the armies of the Byzantine theme of Langobardia, and in the armies of Salerno, Capua and Naples: Norman fought Norman in these petty wars of southern Italy. But in 1029 Sergius IV of Naples regained his throne with the aid of a Norman band under Rainulf, and granted the Normans the border castle of Aversa to hold as a frontier post against Capua. Other Lombard princes followed this example, and soon



at least a dozen Norman leaders had received land grants. With their own bases, the Normans were able to become robber barons, exploiting the wars between the Lombard duchies and maritime cities, between the Byzantine and Holy Roman emperors.

Then in 1038 Rainulf went over to Capua and was made Count of Aversa by the Holy Roman Emperor. Rainulf sent to Normandy for more men, and amongst the new adventurers were William and Drogo d'Hauteville, who were followed over a period of years by eight of their brothers.

In 1040 the Normans fighting for Byzantium turned against their employers and seized the towns of Melfi and Venosa. In the spring of 1041 a joint Norman and Lombard army defeated the Byzantines on the River Ofanto. The Normans now claimed all Byzantine territory as theirs by right, and divided Apulia between themselves, forming



Seal of William the Conqueror. On the reverse he is portrayed bearing a kite shield and 'lance'. He wears a long-sleeved hauberk and mail coif, and a helmet of unusual design, not illustrated in the Bayeux tapestry.

twelve counties. The Holy Roman Emperor's recognition of Rainulf and Drogo as imperial vassals set the seal on this.

In 1057 Robert Guiscard succeeded his brother Drogo and proceeded to methodically subjugate most of southern Italy. In 1060 he took the last Byzantine stronghold in Calabria and in the same year began his conquest of Sicily. Bari, the last Byzantine stronghold in Italy, fell to him in 1071; in 1073 Amalfi acknowledged him as overlord; in 1076 Salerno surrendered to him; in 1081 he attacked Corfu; in 1084 he sacked Rome; in 1090 he took Malta; and he finally conquered Sicily in 1091. Guiscard now ruled the most cultured and technically advanced empire in all of Latin Christendom.

In Guiscard's homeland, William Duke of Normandy had not been exactly idle either. He succeeded to the dukedom at the age of seven or eight, and for the next twelve years the dukedom was in a constant state of anarchy and disorder. The revolt of the barons came to a head in 1047, when the whole of lower Normandy rose, but with the help of his feudal overlord Henry I of France, William, at the age of twenty, crushed the revolt on the field of Valès Dunes, near Caen. The castles of the rebellious barons were razed, and never again did the nobles challenge the duke's power.

Normandy had Flanders to the north, France to the east, Brittany to the west, and Maine and Anjou to the south. The Flemings were friendly, and this

friendship was cemented by William's marriage to Matilde, daughter of the Count of Flanders. Anjou, on the other hand, was bent on extending its frontiers, and for the next decade Anjou and Normandy fought each other in the intervening county of Maine. There were also campaigns against Brittany. The king of France, who saw the growth of ducal power in Normandy as a threat to French suzerainty, sided with Anjou in 1054 and invaded Normandy. William was triumphant on the field of Mortemer, and again at Varaville in 1058, but refused to follow up his advantage by a direct attack on his feudal lord. Not until 1063-4, with the capture of the chief city of Le Mans, did William succeed in conquering Maine. Two years later he invaded and conquered England.

Neither William's nor Guiscard's empires appear particularly large on a modern map, yet their importance in the 11th century was enormous, for outside of Islam and Byzantium they were the first great states to be effectively organized since the fall of Rome.

Organization

Following the normal custom, the lesser chiefs of the Danes had become established as the aristocracy under the Duke of Normandy, but as we have seen, as early as 1047 these nobles were brought to heel by the duke. This enabled the duke to assume total control and in Normandy, as nowhere else so fully at this date, feudalism was organized and controlled for public ends. Military service by feudal vassals was rendered in exchange for the tenure of certain pieces of land (or fees) and this

service was assessed in rough units of five or ten 'knights'. The amount of service was fixed by custom and regularly enforced. Private war between the duke's vassals was strictly limited; castle building was permitted only under ducal licence and on condition that the castles be handed over to the duke on demand; coinage, generally a valued privilege of the greater lords, was controlled exclusively by the duke; local administration was entrusted to *vicecomes* or sheriffs, who represented the ducal or public interest as opposed to the feudal or local interest and who commanded the local levy; and even the Church was controlled by the duke. Not for nothing were the energetic Normans known as 'the men who made things work'.

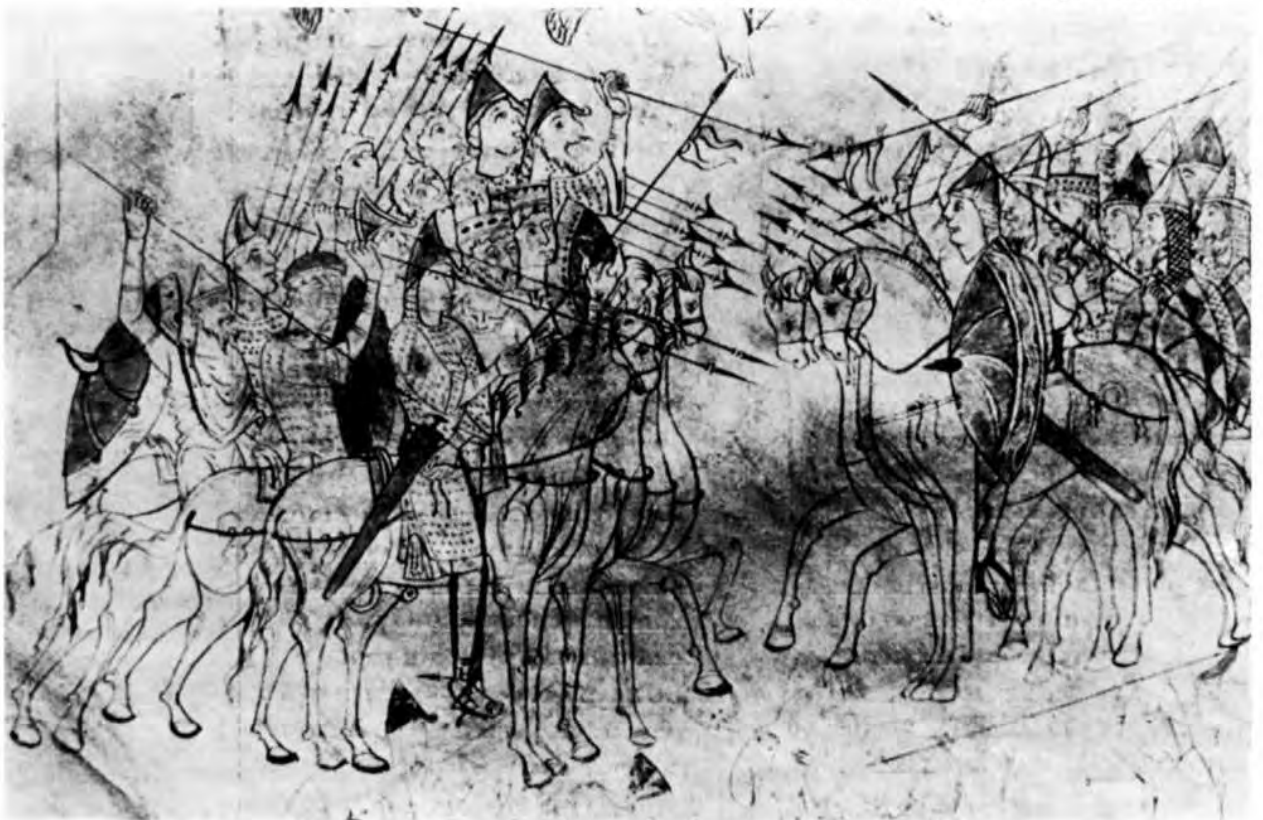
By the time of the conquest of England, therefore, William had a highly organized feudal state with the nobility, bishops and abbots all owing him 'knights'. Yet William's resources were still inadequate for such a vast undertaking, for only a limited amount of the military potential of the dukedom was actually at his disposal. For example,

the greater part of the knight service owed to a Norman tenant-in-chief was for use by that tenant-in-chief alone. Thus the duke could claim the services of only one sixth of the knights owing military service to the bishop of Bayeux. Furthermore, the tenants-in-chief did not regard service across the Channel as part of their feudal obligation, so that even though many Norman barons and knights followed William to England, they did so not as a feudal levy but as adventurers or hired mercenaries seeking booty and land.

The 'Norman' army at Hastings has been estimated at about 7,000 men: of this number probably less than half came from Normandy. To make up the numbers William recruited mercenaries from all over Europe: mailed cavalrymen and infantry, archers and slingers, from Flanders, Brittany, Picardy, the Boulonnais, and even some Norman adventurers from Sicily and southern Italy.

In Italy military service was also rigorously exacted by Guiscard, but his tenants regularly revolted against his demands and on several

Warriors in hauberks, framed and one-piece helmets, and with round shields, as portrayed in an 11th-century bible from Arras. All those in action are using their spears overarm.





William's siege of Dinant, as shown in the Bayeux tapestry. The Normans on the left are obviously about to throw their spears, while two of those on the right are using their spears with an overarm thrusting action.

occasions he had to abandon campaigns to deal with baronial risings. The same problem existed in Capua, where the count had great difficulty in controlling his hot-headed barons.

The tenants-in-chief in both southern Italy and Sicily furnished élite Norman troops in exchange for their land, while the lesser troops were levied from the native population, both in the towns and countryside. However, this supplied only about half the armed forces, and as many again were mercenaries, recruited from the Moslems. Their officers were drawn from the native aristocracy and were responsible for recruiting their own men. The Moslem mercenaries were used primarily as infantry and horsed archers, and also supplied the engineers for sieges.

Arms and Armour

There was not a great deal of difference between the arms and armour of the Normans and those of the Vikings and Saxons, and the reader is therefore referred to the previous sections. However, there were several distinctive features, and these are sufficiently important to warrant an individual arms and armour heading for the Normans: further information on basic equipment may be found in the captions of the colour plates.

Swords followed very much the late Viking pattern, and spears were much the same as the Saxon and Viking ones, except in their method of use. In 993 the Normans sent a contingent to fight in the French army: there was nothing unusual in this, except that the Normans served as cavalry. Now the Normans copied everything worthwhile

from the Franks, and the Franks had been using armoured cavalymen, that is fighting from horseback, since the end of the 6th century. Both the Saxons and Vikings rode to battle, but both normally dismounted to fight: the Normans, as in so many other things, assimilated the experience of the Franks and put it to good use.

The pastures of Normandy were rich in horses, and there is evidence to suggest that the Viking love for horses developed in the Normans to the extent that horses vied with ships for first place in their affections. It is likely that an unrecorded skill in the stable made them the best trainers of horses in France; and in battle great technical skill was needed to handle a shield, spear or sword, and the reins, all the time manoeuvring to seek an advantage, and this—according to the Bayeux tapestry—mounted almost exclusively on stallions, which were accustomed to join in the fighting with hooves, teeth and forehead.

Thus the Norman warrior, as well as using throwing and thrusting spears on foot, was also using these weapons from horseback from at least 993. At Hastings in 1066 it is estimated that 2,000 of the 7,000-strong Norman army were cavalymen, but it is not suggested that these cavalymen charged home with a spear used as a lance, either overarm or underarm: in 1066 Normans were still individual warriors and nothing like a cavalry charge existed, and even if it had, nothing would have persuaded the riders to charge a shield wall, where they would immediately have been pierced by a spear or two, or chopped down by an axe. It is noticeable also that no source mentions or illus-



What might be termed a typical Norman warrior, with hauberk, helmet, kite shield and spear—except this portrayal is from a 12th-century Scandinavian tapestry. (Larousse)



Two Normans (named as William and an attendant) from the Bayeux tapestry; they are armed with an iron-headed mace and a club.

trates the infantry using their spears to provide a thicket of points against cavalry, as they would surely have done to make the charging horses refuse.

For this cavalry the spears retained their normal rôle; the throwing spear for hurling at an enemy from close range in an attempt to create a gap in the shield wall, and the thrusting spear, used either overarm or underarm, to probe for weak spots in a man's defences during individual combat. For example, Hugh fitz Giroie was mortally wounded during a training exercise before the conquest by a 'lance' carelessly thrown by his armiger (esquire). In the Bayeux tapestry, spears, or lances if you prefer, are shown being brandished: some of these may have been thrown, but an overarm thrust would also be the most effective way for a mounted man to get a strike past a shield.

The Norman shield was perhaps their most characteristic piece of equipment: the well-known kite-shaped shield which covered a man, whether on foot or horseback, from the shoulder to the shin. On horseback the unique shape enabled the shield to cover the undefended side down to the ankle, and was slung round the neck by a strap called the *guige*. For combat the left arm was placed through

two vertical straps (*enarmes*) on the back of the shield, the left hand grasping the reins.

Axes were used to a limited extent, but these were short-handled weapons, used on horseback with one hand, in place of a sword.

The bow was known as the 'Danish' bow, that is similar to that employed by the Vikings. Although comparatively ineffective against troops with shields, it could penetrate a hauberk and kill the wearer at ranges of up to 46m, and with a trajectory arrows could be sent some 92m. Archery was much promoted by Charlemagne, but its use in warfare by the Franks declined after his death; William appears to have fostered the arm and developed a considerable body of archers, whose value he fully appreciated. The Normans were to continue to exploit archery in warfare in England, of course. Quivers were mostly worn at the waist belt.

The mail shirt was of the normal interlinked ring construction, with alternate rows rivetted and butted, but in the 11th century its length was increased to reach to the knees or even the calves, and it was slit at front and rear from hem to crotch to enable the wearer to ride a horse. It would appear to have been of a more robust construction than that of the Saxons and Vikings. The wide sleeves still reached only to the elbows, although by 1066 a few of the nobles wore mail sleeves which reached to the wrist under the hauberk.

Helmets were of the spangenhelm type, made either from one piece of metal, or of framework construction with plates. Both types had the nasal.

The Plates

A: Pre-Viking warrior of Scandinavian Vendel culture, c. 550–800

The dress, armour and weapons of this warrior are typical for the pre-Viking era and are based mainly on archaeological evidence from the burial sites of Vendel and Valsgärde in Uppland, Sweden. The helmet, although similar to the late Roman cavalry pattern, is especially typical of the early Saxon and Scandinavian periods. The helmet and shield found at Sutton Hoo in East Anglia, though from a mid-7th-century burial, are similar to Swedish work of the 6th century; it is possible that the link is the Swedish origin of the East Anglian royal house of the Wuffingas. Other Vendel helmets of this pattern, but without the mail, have hinged neck-guards of metal strips or hinged cheek plates which join at the chin.

The greaves (iron strips on leather straps) and mail shoes are according to Professor Post's reconstruction of the Valsgärde find, and are one of a number of differing interpretations. The shield was whitewashed, and later the metal parts would have been richly enamelled in red. Note that the horse is not the modern breed, but more what today would be termed a pony.

B and C: Vikings, 9th–11th centuries

The Vikings loved splendour in their clothing, and silks, brocades and much embroidery in gold thread have been found in their graves. One Viking, buried in Jutland, had with him a battle-axe with the head covered in silver inlay, coat cuffs of wool covered in silk and worked with gold thread, and two silk ribbons with delicate gold embroidery in an elaborate tendril pattern. The ribbons are probably the ornament known in the sagas as *hlad*, which Vikings wore round their brows, rather like the modern 'Indian' fashion. The only jewellery generally worn by the men were arm-rings of braided or twisted gold or silver—the



Norman archers as portrayed in the Bayeux tapestry.

gifts of kings or earls to their retainers—and a brooch to fasten the cloak, which was not worn in battle.

Few Vikings wore the mail hauberk, and most are illustrated in their everyday clothing; a thick woollen coat reaching to mid-thigh, with long sleeves and sometimes belted at the waist, and either tight trousers of wool or wide and baggy ones rather like 'plus fours'. An Arab source of the 10th century says that Rus traders wore these very full trousers, gathered at the knees. Such trousers would have used a great deal of material, and would therefore be appropriate for the richer Vikings, displaying their wealth on their persons. A stone from Gotland shows two duelling Vikings wearing this type of trousers, and the style is confirmed in a tapestry from Skog in northern Sweden, now in Stockholm Museum. The fashion lasted from the 9th to the 11th century.

The *besecker* and *ulfheonar* warriors have not been illustrated as there is no firm evidence of their

appearance. 'Beserk' has been interpreted both as 'bare-shirt' and 'bear-shirt', and there is now no way of knowing which was meant by the sagas. The berserker definitely discarded his hauberk and helmet, but it is doubtful if he discarded his coat or shirt also. His main strength lay in his total disregard for his own life, for his opponents were at a psychological disadvantage the moment they saw him.

The ulfheonar, the wolfskin-clad ones, probably wore a wolfskin over their normal fighting attire, but the only evidence we have of their appearance is a helmet plaque of the 7th century, which shows a warrior with his head and upper body completely covered by a wolfskin.

The right-hand figure in Plate C is shown wearing a helmet of the type found in the 10th-century Gjermundbu grave; it is of a similar pattern to the earlier Vendel helmets. The left-hand figure holds an early skeggox, developing from the fransisca.

D and E: Danes and Saxons, 9th–11th centuries

Little has survived to show us exactly how warriors looked in this period, while the fact that Danes and Saxons were fighting each other in England for a century has tended to blur the lines between the two cultures. In any event, many of their weapons came from the same sources, and by the 11th century, Danes were fighting alongside Saxons in the Saxon army, so inevitably fashions in clothing and weapons tended to merge.

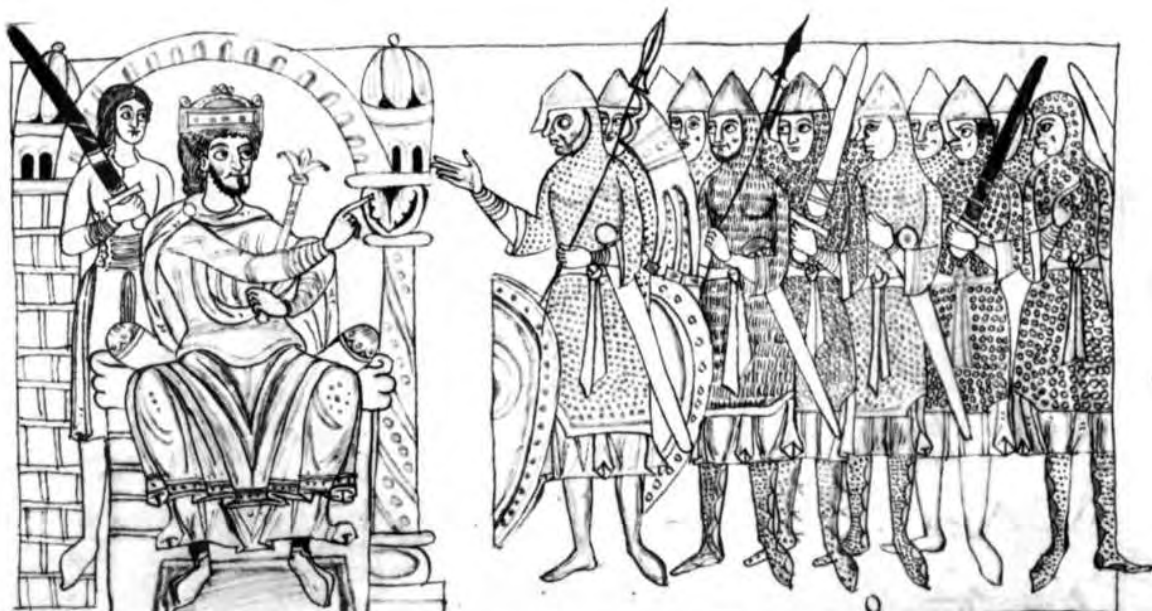
Plate D illustrates at the top two typical Danish Vikings. Below them are a well-armed Dane and a Saxon peasant. The Saxon wears what might be loosely termed a 'Phrygian cap'. Various forms of this ubiquitous hat appear in Saxon manuscripts, but it is by no means clear exactly what it is made of, or its rôle. It may be boiled leather with a crest, which would provide quite a good head defence, or felt over a simple metal skull cap, or merely a fabric. Some forms are more ornate and are obviously not intended as defences; some of these resemble a type of woollen hat still popular in Scandinavia, but with the point curled downwards.

Plate E shows in the foreground an 11th-century housecarl, who might be either Saxon or Dane; he is wearing a typical Saxon mail shirt and waving a late Viking skeggox. In the background are Saxon



Crossbowmen are not illustrated in the Bayeux tapestry and there is no sure evidence that William's army included them: two chroniclers are said to mention crossbows at Hastings, but there is some confusion over the translation of their texts and they may have been referring only to slingers. The Saxons and Vikings seem to have had no use for the weapon. (Gerry Embleton)

spearmen and an archer from the Great Fyrd. Saxon dress consisted mainly of tight woollen trousers and a long woollen tunic with the sleeves puckered on the forearms. Some peasants went



Warriors as portrayed in a mid-12th century manuscript, but equipped virtually the same as the Normans a century earlier.

bare-legged, but in general shoes were worn which had bands attached, and these were criss-crossed over the trousers. Richer men used silk cloth, while the silk embroidery of Saxon England was admired throughout Europe—so much so that William, Duke of Normandy used Saxon embroiderers to record his conquest of England on the Bayeux tapestry.

F and G: Normans, 10th–11th centuries

The Normans illustrated are of necessity based on the Bayeux tapestry but, as mentioned in the text, this source must be interpreted with caution, and there are still many queries unanswered. The mail hauberk was more loose-fitting than the hauberk of the Crusades period, and is shown here slit from hem to crotch. In some cases the divided skirts were laced together to form ‘breeches’ when dismounted, but it is highly unlikely that hauberks with breeches attached were worn, as is insinuated by the tapestry: hauberks were normally taken off by pulling them over the head. Examples of mail sleeves and leggings, worn by the higher ranks, are

illustrated: note both types of leggings are well supported and secured, while the mail sleeves must have been attached to leather on some strong cloth garment. The ‘panel’ on the chest of the figure in Plate G is one of the more puzzling queries raised by the tapestry. It was probably some form of reinforcement for the breast, which might seem logical, but we shall never know for certain. The panel was not nearly so common as some writers suggest: no more than about a third of the warriors illustrated in hauberks have such a panel.

Some form of thick woollen or padded clothing must have been worn under the mail, but again we have no evidence. On the tapestry men are shown nude when their hauberks are removed, and it has been suggested that the undergarment was attached to the hauberk, but this is most likely only a stylized means of illustrating victory, with the dead stripped naked. There was probably also some form of padded cap worn under the coif to protect the scalp and cheeks.

In the background of Plate G are two Normans wearing scale or quilted armours. Numerous

examples of these are illustrated in the tapestry but it is not possible to interpret the embroiderer's stylization with any certainty. Scale armour, made from plates of horn, was certainly in use, while the Normans from southern Italy and Sicily may well have copied *jazerant* (a mail hauberk fixed by studding between two layers of thick material) from the Saracens, whom they had been fighting for some years.

H: Norman and Saxons, post-conquest

On the left is a Norman 'knight' in everyday outdoor dress: the decoration on the tunic is typically Norman. The bearded Saxon on the right is wearing more formal indoor clothing, again with decoration which is typically Saxon. Note especially the hose 'suspenders'. In the background are two Saxon serfs: note the footless hose on the left-hand figure, and the tucked-up gowns.

Notes sur les planches en couleur

A Guerrier de la culture scandinave Vendel, entre 550 et 800. L'illustration des armes et armures a été faite d'après des trouvailles archéologiques en Uppland, Suède, et les interprétations du Professeur Post. Un heaume et un bouclier semblables ont été trouvés en Grande-Bretagne dans le tombeau de Sutton Hoo qui date du 7^{ème} siècle.

B, C Vikings des 9^{ème} et 11^{ème} siècles. Notez la broderie fine au cou et aux manchettes, les incrustations sur les armes et le curieux pantalon bouffant tel que le décrivent les Arabes qui faisaient le commerce avec les gens de la culture 'Rus' au 10^{ème} siècle. Le personnage à gauche porte un heaume semblable à celui qui a été trouvé dans le tombeau de Gjermundbu.

D, E Danois et Saxons, 9^{ème}-11^{ème} siècles. À gauche, des Danois typiques, au premier plan, un guerrier riche et bien armé et un paysan saxon en bonnet 'phrygien'. À droite, un *housecarl* saxon ou danois du 11^{ème} siècle et des Saxons du Fyrd.

F, G Normands, 10^{ème}-11^{ème} siècles. Les jambières et manches de mailles ont dû être attachées à des sous-vêtements de cuir ou de tissu, et il est probable qu'un serre-tête ouaté était porté sous la cagoule. L'empiècement carré sur la poitrine ne s'explique pas, mais il servait peut-être à cacher la fente qui était nécessaire à l'enfilage du haubert. Un tiers seulement des guerriers apparaissant sur la tapisserie de Bayeux portent ce genre d'empiècement. Les artistes illustrant cette époque dessinent souvent des armures à écailles ou matelassées (arrière-plan à droite) mais les détails en sont obscurs.

H Chevalier normand, gentilhomme saxon et serfs, après l'an 1066. La tunique courte, à droite, était la tenue type de jour et d'extérieur et le modèle plus long, porté par le Saxon barbu, était réservé aux occasions plus formelles et porté à l'intérieur.

Farbtafeln

A Krieger der skandinavischen Vendel Kultur, ca. 550–800. Grundlage für Waffen und Rüstung bilden Altertumsfunde in Uppland, Schweden, sowie Ausführungen von Professor Post. Helm und Schild ähnlicher Art hat man in der Sutton Hoo Grabstätte des 7. Jahrhunderts in Gross-Britannien gefunden.

B, C Wikinger des 9.–11. Jahrhunderts. Zu beachten wären die kunstvolle Verzierung des Gewebes an Hals und Manschette, die Einlegearbeit auf Waffen und der eigenartig bauchige Stil der Hosen—wie von den Arabern, die mit der 'Rus' Kultur im 10. Jahrhundert Handel trieben, dargestellt. Die Figur rechts trägt die gleiche Art Helm, wie man in der Gjermundbu Grabstätte fand.

D, E Dänen und Sachsen, 9.–11. Jahrhundert. Links sind typische Dänen; die Figur im Vordergrund ist die eines gut gerüsteten und wohlhabenden Kriegers; und ein sächsischer Bauer mit 'Phrygischer' Kappe. Rechts ist ein sächsischer oder dänischer *housecarl* vom 11. Jahrhundert, und Sachsen vom Fyrd.

F, G Normannen, 10.–11. Jahrhundert. Die Gamaschen und Ärmel der Ritterrüstung wurden sicherlich an der Lederoder Stoffunterkleidung befestigt, und eine gepolsterte Kappe unter der *coif* ist wahrscheinlich. Keine Erläuterung ist für den quadratischen Teil auf der Brust gegeben. Möglicherweise sollte er den Schlitz, der erforderlich war um das *hauberk* über den Kopf zu ziehen, verdecken. Wie auf dem Bayeux Gobelin dargestellt, wurde dies von nur ungefähr einem Drittel der Krieger getragen. Schuppenpanzer oder gepolsterte Rüstung (rechter Hintergrund) werden für dieses Zeitalter oft veranschaulicht, aber Einzelheiten sind unbekannt.

H Normannischer Ritter sowie sächsischer Herr und Leibeigene, nach 1066. Die Kurze Tunika—rechts—war typische Tages- und ausgegarderobe; das lange Gewand, wie es der bärtige Sachse trug, war der mehr formelle Stil für im Hause.

Continued from back cover

- 160 Nap's Guard Infantry (2)
 - 44 Nap's German Allies (1)
 - 43 Nap's German Allies (2)
 - 90 Nap's German Allies (3)
 - 106 Nap's German Allies (4)
 - 122 Nap's German Allies (5)
 - 199 Nap's Specialist Troops
 - 211 Nap's Overseas Army
 - 227 Nap's Sea Soldiers
 - 88 Nap's Italian Troops
 - 176 Austrian Army (1): Infantry
 - 181 Austrian Army (2): Cavalry
 - 223 Austrian Specialist Troops
 - 152 Prussian Line Infantry
 - 149 Prussian Light Infantry
 - 192 Prussian Reserve & Irregulars
 - 162 Prussian Cavalry 1792-1807
 - 172 Prussian Cavalry 1807-15
 - 185 Russian Army (1): Infantry
 - 189 Russian Army (2): Cavalry
 - 84 Wellington's Generals
 - 114 Wellington's Infantry (1)
 - 119 Wellington's Infantry (2)
 - 253 Wellington's Highlanders
 - 126 Wellington's Light Cavalry
 - 130 Wellington's Heavy Cavalry
 - 204 Wellington's Specialist Troops
 - 167 Brunswick Troops 1809-15
 - 98 Dutch-Belgian Troops
 - 206 Hanoverian Army 1792-1816
 - 226 The American War 1812-14
 - 96 Artillery Equipments
 - 77 Flags of the Nap Wars (1)
 - 78 Flags of the Nap Wars (2)
 - 115 Flags of the Nap Wars (3)
- 19TH CENTURY**
- 232 Bolivar and San Martin
 - 173 Alamo & Texan War 1835-6
 - 56 Mexican-American War 1846-8
 - 272 The Mexican Adventure 1861-67
 - 63 American-Indian Wars 1860-90
 - 170 American Civil War Armies:
 - (1): Confederate
 - 177 (2): Union
 - 179 (3): Staff, Specialists, Maritime
 - 190 (4): State Troops
 - 207 (5): Volunteer Militia
 - 37 Army of Northern Virginia
 - 38 Army of the Potomac
 - 252 Flags of the American Civil War:
 - (1): Confederate
 - 258 (2): Union
 - 265 (3): State & Volunteer
 - 163 American Plains Indians
 - 186 The Apaches
 - 168 US Cavalry 1850-90
 - 275 The Taiping Rebellion 1851-66
 - 241 Russian Army of the Crimean War
 - 193 British Army on Campaign

- 57 The Zulu War
- 59 Sudan Campaigns 1881-98
- 230 US Army 1890-1920
- 95 The Boxer Rebellion

THE WORLD WARS

- 80 The German Army 1914-18
- 81 The British Army 1914-18
- 245 British Territorial Units 1914-18
- 269 The Ottoman Army 1914-18
- 208 Lawrence and the Arab Revolts
- 182 British Battle Insignia:
 - (1) 1914-18
 - 187 (2) 1939-45
- 74 The Spanish Civil War
- 117 The Polish Army 1939-45
- 112 British Battledress 1937-61
- 120 Allied Commanders of WW2
- 225 The Royal Air Force
- 70 US Army 1941-45
- 216 The Red Army 1941-45
- 246 The Romanian Army
- 220 The SA 1921-45
- 24 The Panzer Divisions
- 266 The Allgemeine-SS
- 34 The Waffen-SS
- 229 Luftwaffe Field Divisions
- 124 German Commanders of WW2
- 213 German MP Units
- 139 German Airborne Troops
- 131 Germany's E. Front Allies
- 103 Germany's Spanish Volunteers
- 147 Wehrmacht Foreign Volunteers
- 254 Wehrmacht Auxiliary Forces
- 238 Allied Foreign Volunteers
- 142 Partisan Warfare 1941-45
- 169 Resistance Warfare 1940-45
- 270 Flags of the Third Reich:
 - (1) Wehrmacht
 - 274 (2) Waffen-SS
 - 278 (3) Party & Police Units

MODERN WARFARE

- 132 Malayan Campaign 1948-60
- 174 The Korean War 1950-53
- 116 The Special Air Service
- 156 The Royal Marines 1956-84
- 133 Battle for the Falklands
 - (1): Land Forces
 - 134 (2): Naval Forces
 - 135 (3): Air Forces
- 250 Argentine Forces in the Falklands
- 127 Israeli Army 1948-73
- 128 Arab Armies (1): 1948-73
- 194 Arab Armies (2): 1973-88
- 165 Armies in Lebanon 1982-84
- 104 Vietnam War Armies 1962-75
- 143 Vietnam War Armies (2)
- 209 War in Cambodia 1970-75
- 217 War in Laos 1960-75
- 183 Modern African Wars:
 - (1): Rhodesia 1965-80
 - 202 (2): Angola & Mozambique
 - 242 (3): South-West Africa
- 159 Grenada 1983
- 178 Russia's War in Afghanistan
- 221 Central American Wars

GENERAL

- 65 The Royal Navy
- 107 British Infantry Equipments (1)
- 108 British Infantry Equipments (2)
- 138 British Cavalry Equipments
- 72 The Northwest Frontier
- 214 US Infantry Equipments
- 205 US Army Combat Equipments
- 234 German Combat Equipments
- 157 Flak Jackets
- 123 Australian Army 1899-1975
- 164 Canadian Army at War
- 161 Spanish Foreign Legion
- 197 Royal Canadian Mounted Police

An unrivalled source of information on the uniforms, insignia and appearance of the world's fighting men of past and present. The *Men-at-Arms* titles cover subjects as diverse as the Imperial Roman army, the Napoleonic wars and German airborne troops in a popular 48-page format including some 40 photographs and diagrams, and eight full-colour plates.

COMPANION SERIES FROM OSPREY

ELITE

Detailed information on the uniforms and insignia of the world's most famous military forces. Each 64-page book contains some 50 photographs and diagrams, and 12 pages of full-colour artwork.

WARRIOR

Definitive analysis of the armour, weapons, tactics and motivation of the fighting men of history. Each 64-page book contains cutaways and exploded artwork of the warrior's weapons and armour.

NEW VANGUARD

Comprehensive histories of the design, development and operational use of the world's armoured vehicles and artillery. Each 48-page book contains eight pages of full-colour artwork including a detailed cutaway of the vehicle's interior.

CAMPAIGN

Concise, authoritative accounts of decisive encounters in military history. Each 96-page book contains more than 90 illustrations including maps, orders of battle and colour plates, plus a series of three-dimensional battle maps that mark the critical stages of the campaign.

THE ANCIENT WORLD

- 218 Ancient Chinese Armies
- 109 Ancient Middle East
- 137 The Scythians 700-300 B.C.
- 69 Greek & Persian Wars 500-323 B.C.
- 148 Army of Alexander the Great
- 121 Carthaginian Wars
- 46 Roman Army:
 - (1) Caesar-Trajan
 - (2) Hadrian-Constantine
- 129 Rome's Enemies:
 - (1) Germanics & Dacians
 - (2) Gallic & British Celts
 - (3) Parthians & Sassanids
 - (4) Spain 218 B.C.-19 B.C.
 - (5) The Desert Frontier

THE MEDIEVAL WORLD

- 247 Romano-Byzantine Armies 4th-9th C
- 154 Arthur & Anglo-Saxon Wars
- 255 Armies of the Muslim Conquest
- 125 Armies of Islam, 7th-11th C
- 150 The Age of Charlemagne
- 89 Byzantine Armies 886-1118
- 85 Saxon, Viking & Norman
- 231 French Medieval Armies 1000-1300
- 75 Armies of the Crusades
- 171 Saladin & the Saracens
- 155 Knights of Christ
- 200 El Cid & Reconquista 1050-1492
- 105 The Mongols
- 222 The Age of Tamerlane

- 251 Medieval Chinese Armies
- 50 Medieval European Armies
- 151 Scots & Welsh Wars
- 94 The Swiss 1300-1500
- 136 Italian Armies 1300-1500
- 166 German Armies 1300-1500
- 195 Hungary & E. Europe 1000-1568
- 259 The Mamluks 1250-1517
- 140 Ottoman Turks 1300-1774
- 210 Venetian Empire 1200-1670
- 111 Armies of Crécy and Poitiers
- 144 Medieval Burgundy 1364-1477
- 113 Armies of Agincourt
- 145 Wars of the Roses
- 99 Medieval Heraldry

16TH AND 17TH CENTURIES

- 256 The Irish Wars 1485-1603
- 191 Henry VIII's Army
- 58 The Landsknechts
- 101 The Conquistadores
- 263 Mughul India 1504-1761
- 235 Gustavus Adolphus (1): Infantry
- 262 Gustavus Adolphus (2): Cavalry
- 14 English Civil War Armies
- 110 New Model Army 1645-60
- 203 Louis XIV's Army
- 267 The British Army 1660-1704
- 97 Marlborough's Army
- 86 Samurai Armies 1550-1615
- 184 Polish Armies 1569-1696 (1)

- 188 Polish Armies 1569-1696 (2)

18TH CENTURY

- 261 18th Century Highlanders
- 260 Peter the Great's Army (1): Infantry
- 264 Peter the Great's Army (2): Cavalry
- 118 Jacobite Rebellions
- 236 Frederick the Great (1)
- 240 Frederick the Great (2)
- 248 Frederick the Great (3)
- 271 Austrian Army 1740-80 (1)
- 276 Austrian Army 1740-80 (2)
- 48 Wolfe's Army
- 228 American Woodland Indians
- 39 Brit. Army in N. America
- 244 French in Amer. War Ind.
- 273 General Washington's Army (1): 1775-1778

NAPOLÉONIC PERIOD

- 257 Napoleon's Campaigns in Italy
- 79 Napoleon's Egyptian Campaign
- 87 Napoleon's Marshals
- 64 Nap's Cuirassiers & Carabiniers
- 55 Nap's Dragoons & Lancers
- 68 Nap's Line Chasseurs
- 76 Nap's Hussars
- 83 Nap's Guard Cavalry
- 141 Nap's Line Infantry
- 146 Nap's Light Infantry
- 153 Nap's Guard Infantry (1)

Title list continued on inside back cover

Please note that for space reasons abbreviated titles are given above; when ordering, please quote the title number, e.g. 'MAA 109' for 'Ancient Armies of the Middle East', etc.

Avec annotations en français sur les
planches en couleurs.
Mit Aufzeichnungen auf Deutsch über den
Farbtafeln.

ISBN 0-85045-301-1



9 780850 453010